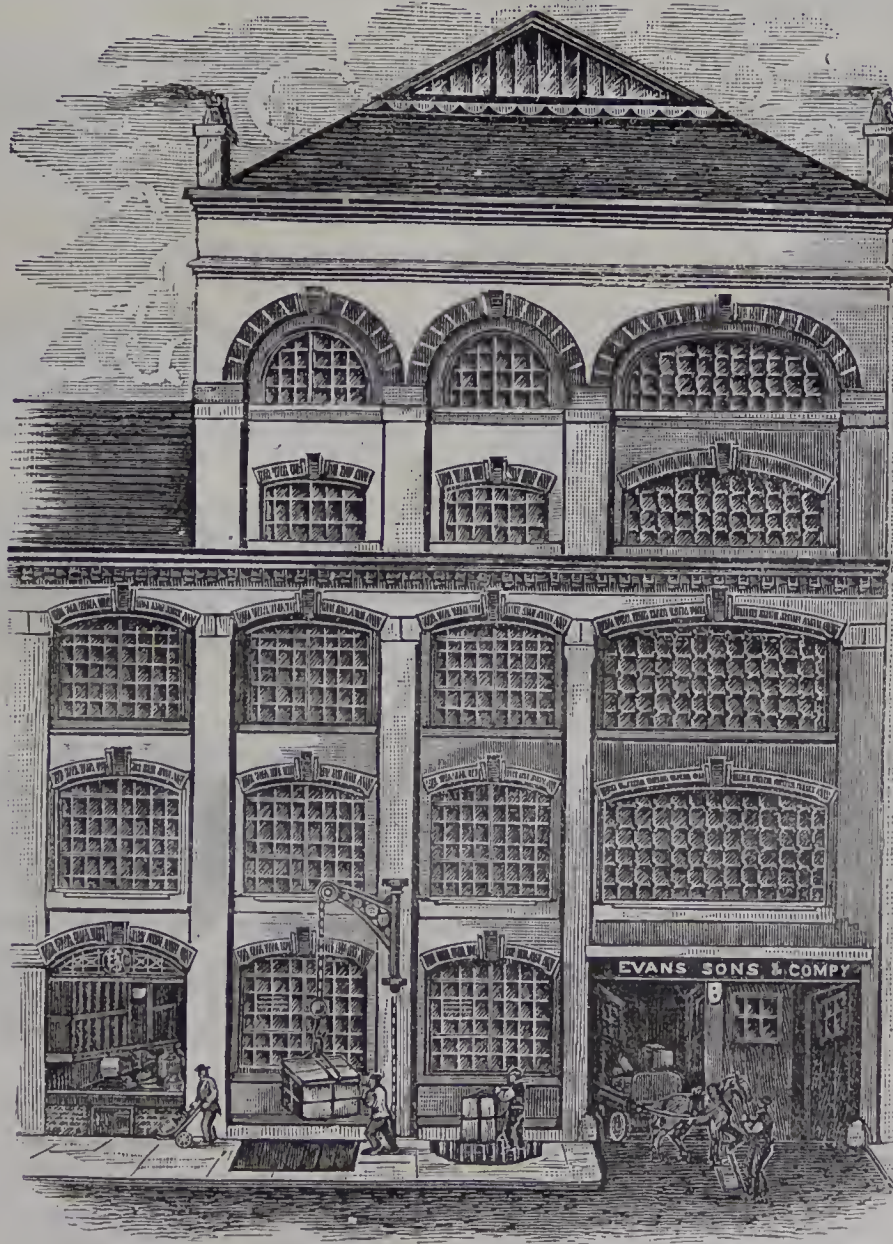


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Is a high-class preparation of real merit. It is highly esteemed by the Medical Profession because it is standardised. It is popular with the public because it is extremely palatable and suits the English taste. It is rightly a favourite with the retailer because it bears a good profit; at the same time it is reasonable in price.

The wine has been submitted to every known authority, and the verdict has been unanimous—viz., that it is THE BEST. We have numbers of testimonials from doctors who prescribe it, retailers who sell it, and persons who drink it.

### PRESS OPINIONS:—

#### THE LANCET, April 9:—

HALL'S COCA WINE (STEPHEN SMITH & CO., BOW, E.)

"This is an excellent wine, with an alcoholic strength equal to good port, possessing a similar flavour and bouquet, but associated with it also is the peculiar though pleasant aroma of the fresh Coca Leaf. Ether when shaken with the Alkalised Wine yielded a residue on evaporation which with hydrochloric acid gave characteristic Crystals of Cocaine hydrochlorate: they were further identified by the numbing effect produced by the Crystals when rubbed on the tip of the tongue. Analysis gave the following data: Alcohol, 15 per cent. by weight, 18.50 per cent. by volume; total solid matter, 18.73 per cent. (sugar and coca principles); mineral matter, 0.33 per cent. The restorative and invigorating properties of the Coca Leaf are now well known, and it may be very conveniently and palatably administered in the form of an agreeable Wine such as that under examination, a wineglassful of which is stated to contain one drachm of the soluble active ingredients of the leaves."

#### THE HOSPITAL GAZETTE:—

"We have received from the manufacturers (Messrs. STEPHEN SMITH & CO., of Bow, E.) a sample of 'Hall's Coca Wine.' It is extremely palatable and has the peculiar flavour and aroma of Erythroxylon Coca well marked, indicating that the finest leaves of the plant are used in its preparation. As a nerve tonic and digestive stimulant of high value, Coca is well recognised by the profession, and its administration in conjunction with wine gives the best results. In addition to its value as a tonic and digestive stimulant, Coca Wine is deserving of trial in cases of insomnia resulting from brain fatigue, as it frequently produces sleep without resorting to the use of dangerous narcotics. This preparation is in every respect fully equal to any similar combination which has been brought under our notice."

#### THE BRITISH MEDICAL JOURNAL:—

"A preparation of the Coca Leaf, bearing the name 'Hall's Coca Wine,' has been submitted to us. It is carefully prepared, and contains a large proportion of the alkaloid. Coca is undoubtedly a valuable stimulant and tonic, and this preparation of it may be recommended as fulfilling these indications."

#### THE CHEMIST AND DRUGGIST, Jan. 16:—

"Messrs. STEPHEN SMITH & Co., after a long series of experiments, have succeeded in producing a wine which represents in a wineglassful a drachm of the soluble and active constituents of the leaves. *The wine is of good flavour, and has a nice appearance*—indeed, it has been for the purpose of retaining these features that the manufacturers have spent much time in perfecting the process. The preparation is put up in an attractive manner in imperial pints, each boxed in a grey carton, to retail at 3s. 6d."

#### THE COURT CIRCULAR:—

"The undoubted properties of Cocaine being beyond contradiction, the question naturally arises as to the best form in which to take it. As a drug *per se* Cocaine is unquestionably unpalatable, but prepared or combined with Invalid port and called Hall's Coca Wine, it is distinctly pleasant, although each wineglassful contains one drachm of the soluble and active constituents of Coca Leaf, which is quite sufficient to make it a powerful restorative and tonic invigorator, especially serviceable at the moment for convalescents from the prevailing epidemic. Apart from its unique power as a recuperative in cases of over-fatigue of both mind and body, we can personally recommend Hall's Coca Wine for sleeplessness, having found it invaluable in an obstinate case of insomnia, and we are glad to note that it is extensively prescribed by the leading physicians."

On receipt of Card we will forward, free and carriage paid, to any Chemist who holds the retail wine licence, one bottle of Hall's Coca Wine. This wine retails at 3/6 per bottle, the wholesale price is 26/ per dozen, cases, pamphlets, frames, &c., included. We also undertake to create a demand for it in any district that has not already been worked.

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*Consulting and Analytical Chemist.*

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Mr. F. M. ABRAHAM and Mr. M. OONROY, F.C.S., Vice-Presidents.  
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### OCTOBER—"MINOR."

12 sent in, 9 passed  
Mr. A. H. BENSON, Wigan.  
" W. S. GILL, Boston Spa.  
" F. H. HANCOCK, Liverpool.  
" W. HUGHES, Birkenhead.  
" L. M. JONES, Holyhead.  
" J. ROBINSON, Sunderland.  
" O. W. SWIFT, St. Helens.  
" R. T. WALKER, Wigan.  
" T. H. WINTANLEY, Wigan.

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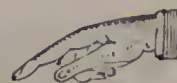
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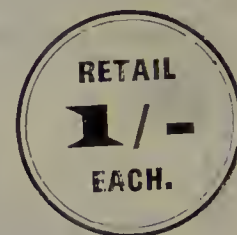
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## **A "STORES" CAUGHT!**

Mr. JUSTICE STIRLING.—October 30, 1891.

### **KEATING v. KIBBLE & CO.**

THE Defendants are Proprietors of large Stores at Deptford, and when asked for "Keating's Powder," sold by their shopmen an article not made by me. The Defendants denied that this was done with their knowledge, and this may be conceded, but it cost them over £40, although in this instance I pressed my Solicitors to be as considerate to them as possible. The Court ordered the Defendants to pay the whole costs of the action, and issued an injunction restraining them from offering for sale any preparation other than that prepared by Thomas Keating under the name of "Keating's Insect Powder."

## **IMPORTANT NOTICE.**

12 BRIDE LANE, LONDON, E.C., *March 15, 1892.*

WHEREAS I have reason to believe that certain persons have sold to Customers Packets of what they represent to be KEATING'S INSECT POWDER, which Powder has not been manufactured by me, I HEREBY GIVE NOTICE that I shall institute Legal Proceedings against persons found to be improperly selling any but Keating's Insect Powder to customers asking for it, which action renders them liable to very heavy penalties.

THOMAS KEATING.

## **A CHEMIST.—HEAVY DAMAGES.**

In the High Court of Justice—Chancery Division. Mr. JUSTICE NORTH—October 26, 1886.

### **KEATING v. POLL.**

#### **IT WAS ORDERED—**

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains any substance poisonous to animals or human beings, or from making any statement to the effect that such Powder is dangerous to animals or human beings.

#### **IT WAS FURTHER ORDERED—**

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this action.



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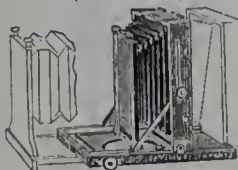
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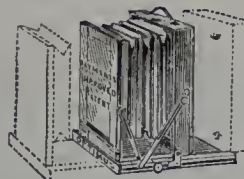


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All other Thermometers have a contraction in the stem an inch above the bulb, and a chamber within which retains a part of the mercury. This is a defect, as it is a difficult matter to heat the mercury properly in this chamber, it being so far away from the bulb and mouth.

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40 oz. quin. sulph., 10d. oz.; 8 4-oz. bottles Howards' quin. sulph., 1s. 2d. oz.; 2 lb. potass. iodid., 10s. lb.; carriage paid. Bowen, Chemist, Thorne Road, South Lambeth, London.

#### Educational.

Es. Wills' "Materia Medica" Cabinet, 2s. 6d.; 3s. 6d. Wills' "Practical Botany," 1s. 9d.; Es. Temple's "Pharmacv," 1s.; latest editions; post free. Barnes, 285 Brockley Road, S.E.

#### Formulae.

Recipe for making finest brass polish on earth, no acid used; post free 1s. Seymour Pollock, 312 Vauxhall Bridge Road, London.  
Tom Brooks's recipes (14th year), warranted practical, and certain to please; detailed list post free; sanitary furniture cream, herb extract, skin pills, brylhum, brilliantine, oatmeal and white rose lotion, anti-drink pills, walnut pomade, beauty cream, poppies and chamomile (for fomentation, concentrated), mist, occasional (for ladies), tannin gargle, itch ointment, blood powder, glycerine cream; special offer, above 14 as sample, for 5s., 3 for 1s. 6d., post free. Tom Brooks, Chemist, Hornsey, London, N.

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Four specie-jars, with gilded zinc covers, 15½ in. high, 3s. each; several specie-jars, plain, and plain glass covers, from 17 in. high to 32 in. high, including covers; several nests of counter-drawers; marble top soda-water stand, stoppered rounds, blue stoppered rounds, ointment and extract jars; a few carboys. W. Hawke & Son, Wild Court, Great Wild Street, London, W.C.

Job lines.—Pestles and mortars. No. 0 to 12, 1s. to 9s. each; pill-machines, 12s.; leech-jars, 4s. and 6s.; pear-shaped carboys, 2-gall. 5s., 3-gall. 7s., 6-gall. 15s., 8-gall. swan-neck on stand, 63s. each; shop-rounds, 8s. dozen; double three-tier glass stand, 4 ft. long, 60s.; single ditto, 25s.; blue ointment-jars 4-lb. 15s., 2-lb. 12s., 1-lb. 9s., ½-lb. 6s. dozen; white ditto, 2s., 4s., 6s., 8s. dozen. Natali, 40 Gray's Inn Road, Holborn, London.

#### Miscellaneous.

Avery's dispensing scales, sliding pillar, &c.; good condition; cheap. "Radix," 138 Queen's Road, Halifax.

Mineral-water plant, turnover filter. Bisschop gas-engine in working order; clearing for larger installation; £40 or offer. Rabbits & Holt, St. Mary's Road, Kingston, Portsmouth.

Specie-jar, 19½ in. high, 15s.; shop-jars; mahogany stands; various sizes plate-glass and plate-glass shelves; medical books; 12 years' *Chemist and Druggist*; several years' *Licensed Victuallers' Gazette*, containing particulars of the old prize-fights; lists sent, 112 High Street, Woolwich.

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Shop-fittings and utensils, all descriptions, for cash. Newman, 13 St. Andrew's Square, Sarbiton.

8-ft. run of drawers; must be low price; state condition and particulars. "Ferri," 312 Spring View, Lower Ince, Wigan.

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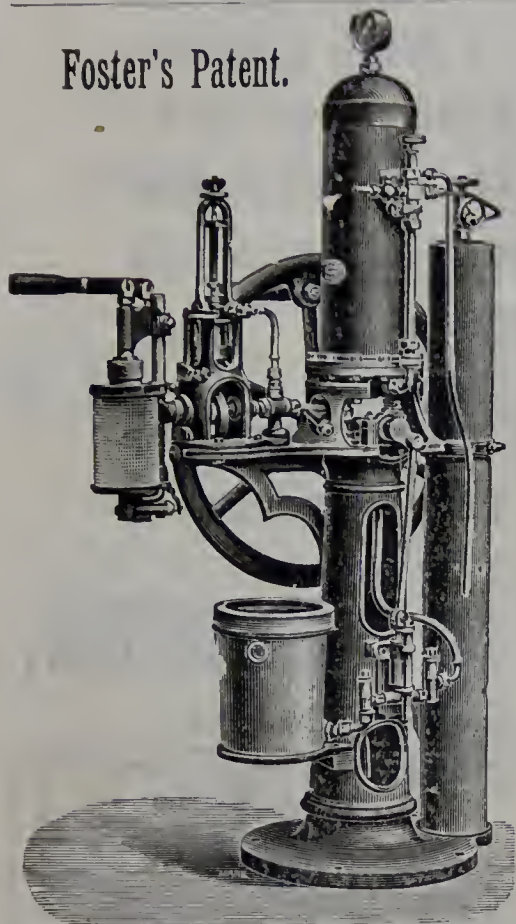
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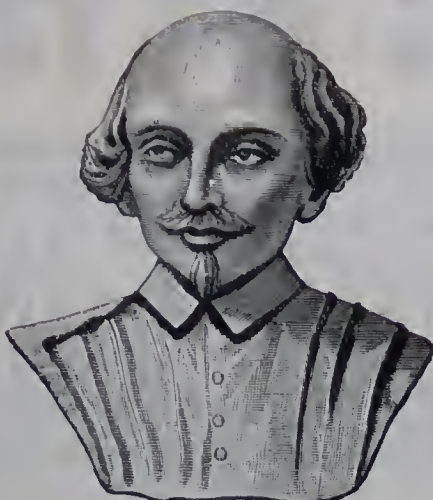
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# The Chemist and Druggist

## SUPPLEMENT

Businesses Wanted.  
Businesses for Disposal.  
Premises to Let.  
Auction Sales.

SATURDAY, APRIL 23, 1892.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

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62

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## BUSINESSES FOR DISPOSAL—Continued.

**LONDON, E.**—Death vacancy.—An old-established Chemist's Business; carried on by the late proprietor for 38 years; rent 8s. 6d. per week; price £100. Apply to Simkin, 82 Berner Street, Commercial Road. Private door.

**A GOOD** Retail, Prescribing, and Agricultural business; market town in Lincolnshire; all newly fitted; well stocked; satisfactory reasons for disposal; next door to post-office; opp site Corn Exchange. Particulars of A. C. Farmer, Chemist, Spilsby.

**FOR** disposal, in a London suburb, N.E., a good-class Light Retail and Dispensing Business; established over 50 years; in the hands of the present proprietor, who is retiring, nearly 20 years. For particulars apply to T., care of Messrs. Hill & Son, Southwark Street, S.E.

**IMMEDIATE.**—Chemist's Business; S.W. District; returns over £200; proprietor compelled to dispose of it at once; to a ready purchaser would be sold for practically the value of stock and fixtures. Apply, by letter, to "Scorgius," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**S.E.**—A genuine Light Retail Business (with Post Office attached), returning from £8 to £10 weekly; entirely under management; good house, garden, and back entrance; rent low; on lease; about £230, or offer. Apply, X. Y. Z., c/o Willows, Francis & Butler, 101 High Holborn.

**LONDON, N.W.** Principal thoroughfare; Chemist and Druggist; doing fair trade; lease 12½ years; rent £85, including rates, taxes, and water, price £130, all at, or valuation; satisfactory reason given for disposing. Address, "Homer," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**LIGHT** Retail and Dispensing Business, in a first-class residential neighbourhood within 10 miles of London; returns, under management, £750; net profit £350; special facilities for increase in the hands of energetic principal. price low. K., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**AT** once.—Light Retail, Prescribing, and Dispensing Business; returns £300; exceptional profits; capable of increase; making many fittings and well stocked; cause of sale, owner taking larger business; every investigation allowed to bona-fide applicants; good opening for dentistry. Morris, Chemist, 117 Hesse Road, Hull.

**VALUATION** about £150.—Light Retail and Prescribing Business, near Forest Hill, S.E.; returns about £6 weekly, under manager; main road; rent only £30; good house, 9 rooms; owner over 70, very ill, must sell; valuation will be accepted. "Amy," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**EDINBURGH**—An old-established Family and Dispensing Business, in a main thoroughfare; returns about £700, at good prices; substantially fitted throughout; rent £35, on lease; same hands 40 years; satisfactory reasons given for sale; price £500. Particulars from Messrs. Duncan, Flockhart & Co., South Canongate, Edinburgh.

**A FAST** improving Retail and Prescribing Business, in London main thoroughfare and busy locality, East; increasing neighbourhood; much neglected; good 8-roomed house; low rent, doing £11 weekly, capable of doing £18; opening for Dentistry; no agents, price £350. Apply, "Jeeks," Hearn's, 38 Southwark Street.

**£300 BARGAIN.**—A Light Retail and Prescribing Business; returns until recently £14 weekly, now doing £10 under bad management; splendid position in main London thoroughfare, opposite station, S.E.; handsomely fitted double-fronted shop, price £300. 325, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.



## ATIONS OPEN—Continued.

Minor qualification, indoors, aged about 23, for tall; hours 8.30 to 8. Apply, with usual particulars (nec), C. A. George, 70 Farsate, Sheffield.

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t Junior or Improver wanted at once; state age, salary and previous experience; enclose photo if convenient; l opportunity of acquiring knowledge of better-class usng. R Beal & Son, Ilford, Essex.

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RY or Manager; qualified; disengaged. 18 Elvm East Dereham.

20; tall; 4 years' experience; London. 50 Shirock Road, ck Hill N.W.

n London; 3½ years' experience; disengaged. W., 39 East-et, Gloucester.

lu a good business; satisfactory references. Field, 87 Street, Leamington.

NT; 24; good experience; town and country. "Salicin," hester Place, N.W.

(18); 3½ years experience; time for study. Care of H. Kelsall House, Hadfield.

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**£300 BARGAIN.**—A Light Retail and Prescribing Business; returns until recently £14 weekly, now doing £10 under bad management; splendid position in main London thoroughfare, opposite station, S.E.; handsomely fitted double-fronted shop, price £300. J. 25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.



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See page 12  
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between the fictitious nutritive value of such invalid foods as are mainly composed of Gelatine or the extractive matters of meat, or both, as many so-called peptones, meat essences, &c., are, and the true

### STRENGTH OF MEAT,

which is not yielded by its GELATINE nor by its EXTRACTIVES, but by the ALBUMINOID matters it contains, and which, by Denaayer's process, are dissolved and converted by pepsine into a delightful and elegant preparation.

See THE LANCET, May 2nd; HOSPITAL GAZETTE, June 5th; CHEMIST AND DRUGGIST, April 16th; ANALYST, May 1st. upon Mr. Denaayer's new method for the Analysis of Peptones, whereby the gelatine is capable of determination, whereas this body has hitherto been unavoidably included with peptone albumose by analysts.

Description will best be appreciated with the articles before you, therefore you are invited to send for a free sample of

DENAAYER'S STERILIZED PEPTONE OF MEAT (2/- per bottle, ready for use).

DENAAYER'S LIQUID PEPTONATE OF IRON (1/6 per bottle).

PULVIS FERRI PEPTONATIS (Denaayer), 4/- per ounce.

PEPSINA PORCI (Denaayer), 3/- per bottle, one-third of an ounce.

DEPOT AGENTS—

FOR SCOTLAND—EDINBURGH: Messrs. Duncan, Flockhart & Co; GLASGOW: Old Apothecaries' Co., Lim.  
FOR IRELAND—DUBLIN: Messrs. Hamilton, Long & Co., Lim.; BELFAST: Messrs. Grattan & Co., Lim.



Chemists are earnestly requested in their own interest to maintain full retail price of 1s. 6d. per bottle.

# THE "FRANZ JOSEF" Natural Aperient Water

Claims these advantages in comparison with others of that class, viz.:—

- (1) It is the **STRONGEST** in the cathartic salts; and therefore less of it is necessary to produce the desired effect.
- (2) Fortunately it happens to be **ALMOST TASTELESS**.
- (3) Being a **PURELY NATURAL** Water, its action can always be depended upon.
- (4) It is most suitable for **CHILDREN** in small doses.

Of Special Value in the Treatment of **CHRONIC CONSTIPATION**,  
Lithemia, the Laxative for Ladies before and after Accouchement, Anæmia, Dyspepsia, and Gastric Catarrh.



N.B.—On application, a Scientific Treatise on the "Physiological Action and Therapeutic Effects of Aperient Mineral Waters," for carrying out a prolonged course of treatment at home in imitation of that at Carlsbad and Kissingen.

Chemists will oblige by writing for the handsome Show Card, of which the above is a facsimile in Black and White, to—

**THE "FRANZ JOSEF" CO.,** 4 Sussex Place, **LONDON, E.C.**  
Leadenhall St.,



EIGHT PRIZE MEDALS AWARDED.

**GOODALL'S  
HOUSEHOLD  
SPECIALITIES.****YORKSHIRE RELISH.**

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each.

**GOODALL'S BAKING POWDER.**

The Best in the World. 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**GOODALL'S EGG POWDER.**

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**GOODALL'S CUSTARD POWDER.**

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

**GOODALL'S BLANCMANGE POWDER**

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

**GOODALL'S QUININE WINE, B.P.**

Best Tonic yet Introduced. Bottles, 6d., 1s., and 2s. each.

**GOODALL'S GINGER-BEER POWDER.**

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

**GOODALL'S BRUNSWICK BLACK.**

For Painting Stoves, Grates, Iron, Tin, &amp;c. 6d. and 1s. Bottle.

**GOODALL'S LAVENDER WATER.**

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

**GOODALL'S PLATE POWDER.**

For Polishing and Cleaning all Metals. Boxes, 6d., 1s., and 2s.

**GOODALL'S JELLY SQUARES.**

Make a Delicious and Nutritious Jelly. In ½-pint, 1-pint and Quart Boxes, 3d., 6d., and 1s. each.

PROPRIETORS—GOODALL, BACKHOUSE &amp; CO., LEEDS.

**PATENT MEDICINES  
AND  
DRUGGISTS' SUNDRIES.**

Monthly Price List of Patent Medicines, Druggists' Sundries, &amp;c., will be sent post free on application to

**GOODALL, BACKHOUSE & CO., LEEDS.**

PARIS EXHIBITION, 1889.

PRIZE MEDAL AWARDED TO

**“SALVO  
PETROLIA”**

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Manufactured by the Proprietors in Five distinct qualities—  
**WHITE, LEMON, YELLOW, GOLDEN AND VETERINARY.**  
PACKED IN TINS, 1, 5, 10, 14, 28, 56, and 112 lbs. Also in 3-cwt. Casks.**“OLEUM DEELINÆ”**

(REGISTERED).

UNIVERSALLY ADOPTED BY THE MEDICAL PROFESSION FOR  
**OPHTHALMIA, SCURVY, RINGWORM, ECZEMA,  
AND ALL SKIN-DISEASES.**

For External and Internal Irritation of every kind.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles.

Pint Bottles, 4s. 6d. each, for Hospitals and Dispensing Chemists.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

**“Edible Salvo Petrolia”**For Public Speakers, Actors, and Singers.  
1s. 6d. per Tube.

The above are Manufactured Solely by the Proprietors,

**THE DEE OIL COMPANY,  
LIMITED.**

Works—SALTNEY, CHESTER.

OFFICES—

**LONDON—38 LEADENHALL ST., E.C.**Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff,  
Bristol, Belfast, Barrow-in-Furness, Nottingham,  
Paris, Hamburg, &c.



# PETER TYRER'S <sup>1<sup>D.</sup></sup> LINES

## CHEMISTS SAVE TIME AND MONEY

By selling my "Plain Label" \* Lines. Should remit prices quoted for sample  $\frac{1}{4}$ -gross lots. If not satisfactory, I will pay carriage back, and return cash.

### \*PENNY MENTHOLS

On  $\frac{1}{4}$ -gross Cards .. .. 5/6 and 6/6

### \*PENNY (*Tasteless*) PILLS

6 in a box,  $\frac{1}{4}$ -gross Cards .. .. 4/6

### SPECIAL NEW LINE.

### \*PENNY (*Tasteless*) PILLS

6 Pills in Glass Tubes,  $\frac{1}{4}$ -gross Cards .. .. 5/6

### \*PENNY SOOTHERS

Black Tests, fitted complete with Shield, Union, and Cord, on  $\frac{1}{4}$ -gross Cards at 7/-; this is a good line, and sells freely.

### \*PENNY TOOTH TINCT.

With Wool complete,  $\frac{1}{4}$ -gross cards .. .. 5/6

### \*PENNY CORN SOLVENT

On  $\frac{1}{4}$ -gross Cards .. .. 5/6

### \*WORM CAKES (*Gingerbread*)

As supplied to the largest houses in London. Per lb.

1-lb. tin (tins free), 60 to the lb. .. .. 1/2

$\frac{1}{4}$ -gross tins .. .. Per gross 4/6

$\frac{1}{4}$ -gross tins .. .. The "SWEETMEAT" WORM CAKES, 1d. each. .. 6/

### \*FULLER'S EARTH POWDER

1d. Boxes, in  $\frac{1}{4}$ -gross glass-top boxes .. .. 3/6

### \*VIOLET POWDER

1d. Boxes, in  $\frac{1}{4}$ -gross glass-top boxes .. .. 4/

### \*GOLD-BEATER'S SKIN

1d. Packets, on  $\frac{1}{4}$ -gross cards .. .. 3/6

### \*COURT PLASTER

1d. Packets, on  $\frac{1}{4}$ -gross cards (Black, White, or Pink) .. .. 4/

### \*TOOTH ENAMEL

(Gutta Percha Enamel for Stopping Decayed Teeth. 1d. Packets, on  $\frac{1}{4}$ -gross cards .. .. 4/)

For sums under £1 please remit Postal Order, not Cheque, and oblige,

[3]

PETER TYRER, 70 Long Lane, LONDON, S.E.

BONE GENUINE WITHOUT THE

## TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysis by the "LANCET," December 20th, 1890 :-

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."



REGISTERED TRADE MARK.

Where Vacancies exist, Agencies are appointed by



PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED

5 JEWRY STREET. LONDON, E.C.

## "MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 lb. Tins only.

TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS.

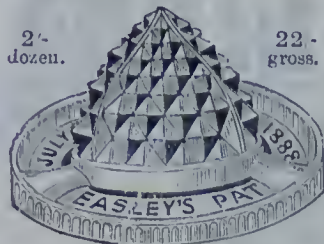
SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.



## LEMON JUICE EXTRACTOR



Nently packed in sub-divided Boxes of one dozen.

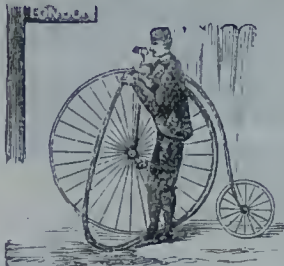
Do not be deceived; every Gemine Squeezer bears EASLEY'S name and date of patent.

In casks of 24 gross, not in boxes, 20/- per gross.

## INDURATED FIBRE.



It has no Hoops to Loosen and Drop or Rust Off. Being Seamless, Bottom will not Fall Out. Galvanised Handles. Warranted to outlast all others. Price per doz., 12/-.

BOURNE'S  
BICYCLE CEMENT.

For attaching Rubber in Bicycle, Tricycle, and Perambulator wheels. Its adhesive properties are of the highest order, uniting the various substances to which it is applied with extreme tenacity. For Tyres it is simply perfection. Black or Red.

6d. boxes .. per doz. 3/6  
3d. " .. " 2/0

## WATER FILTERS.

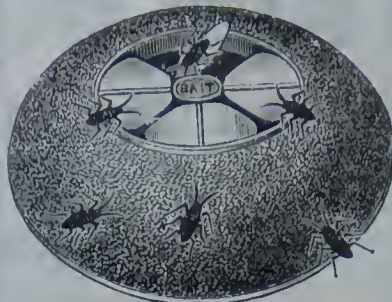


CHEAVIN'S FILTER affords a certain protection against the dangers that lurk in the domestic water-supply. Guaranteed to remove Typhoid, Diphtheria, Poisoning, &c. Prices on application.

## BEE SWAX

W. B. FORDHAM & SONS, LTD.  
YORK ROAD, KING'S CROSS, LONDON, N.

## MATCHES

THE  
DEMON BEETLE TRAP.

THE MOST INGENIOUS YET INVENTED.  
(Patent No. 2512.)

Has been proved to CATCH THOUSANDS where other Traps fail.

Price reduced to 8/6 per doz.

All Ironmongers stock this, the only real Beetle Trap.

## BROOKE'S SOAP.



In London.  
In Belfast.

In Bristol.  
In Dublin.

Cases of 100 Large Bars,  
25/-

Cases of 60 Large Bars,  
15/-

Boxes of 48 Half Bars,  
6/3

## ICE CREAM IN 40 SECONDS.



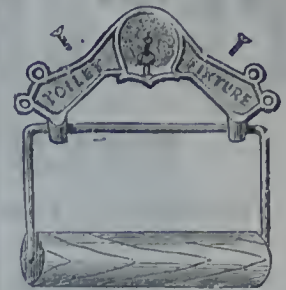
Economy of Ice. Economy of Salt.  
Economy of Time. Economy of Labour.  
A Child can Operate it.  
Full particulars free by post.

## GELATINE

W. B. FORDHAM & SONS, LTD.  
36 to 40 YORK ROAD, LONDON, N.

## GLUE

## LAVATORY FIXTURES.



This fixture "THE PEACOCK." Complete as shown. Each one in a box.

Price per dozen, 2/-  
.. gross, 24/-

## TOILET PAPER.



In 12-oz. Rolls. PERFORATED.  
In Cases of 100 Rolls.

No. 1, Thin Manilla, 1,000 Sheets,  
6/- per doz., 48/- per case.

No. 2, Superior, 1,000 Sheets,  
4/6 per doz., 34/- per case.

No. 3, Seconds, 1,000 Sheets,  
3/6 per doz., 23/- per case.

Terebene Medicated, thorough Disinfectant, 1,000 Sheets, 8/- per doz., 60/- per case.

Paper in 12-oz. Rolls. NON-PERFORATED.

In Cases of 100 Rolls.

No. A, Extra Super, 4/9 per doz., 36/- per case.

No. B, Seconds, 3/3 per doz., 25/- per case.

## Pine-tissue Toilet Paper.



In Packets of about 500 Sheets.  
2/- per dozen Packets. If  
1 gross, 23/-; if 5 gross, 22/-; if  
20 gross, 21/- per gross.

NEWT'S FURNITURE  
POLISH.

Unvalued French Polish Reviver  
(in bottles).

Superior to all preparations for  
Furniture.

Established 1838.

1/9 3/3 6/6 dozen.



Telegraphic Address—CHEMICUS LONDON.

## 25



**CITRIC ACID**

Hassall & Co. (Phospho)

**COCAINE-HYDRO.**

Howards & Sons

**COCA WINE**

Armbricht, Nelson & Co.  
French Hygienic Soc.  
Mariault & Co.  
Stephen Smith & Co. (Hall's)  
Wilcox & Co. (Van Mariani)

**COCA & CHOCOLATE**

Cadbury Bros. (Orlstray & Co.)  
Root & Co. (Lim.)  
Rowntree & Co.

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Allen & Hanbury  
Burroughs, Wellcome & Co.  
Evans, Sons & Co.  
Greiff, R. W., & Co.  
Hill, A. S., & Son  
Hockin, Wilson & Co.  
Jackson, W. & H.  
Lofthouse & Saltmer  
Smith, T. J.  
Southall Bros. & Barclay  
Woolley, Sons & Co.

**COFFEE**

Celery Coffee Co.  
Symington, T., & Co. (Coffee Essence)

**COLPISABLE TUBES**

Betts & Co.

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Burroughs, Wellcome & Co.  
Fuerst Bros.  
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Lloyd, T., & Co.  
Richardson, J., & Co.  
Wyleys (Lim.)

**CONCENT. LIQS.**

Evans, Sons & Co.  
Fletcher, Fletcher & Stevenson  
Lloyd, T. H., & Co.

**CONFECTIONERY**

Blyton, Astley & Co.  
Gibson, R., & Sons  
Guest, T., & Co.  
Kerfoot, T., & Co.  
Lynch, T., & Co.  
Southwell, U., & Co.  
Warrick Brothers

**CORN CURES**

Paul, F.  
Pattison, G.  
Support Bros.

**COTTON WOOL**

Haynes, G., & Co. (Absorbent)  
Robbins & Sons (Absorbent)  
Sanger, J., & Sons  
Seabury & Johnson (Septics)  
Sedox, Absorbents, and Anti-

**CRSED LINSEED**

Grubham, W., & Co.  
Mumford, S. G.

**DENTIFRICES**

Barclay & Sons (Lim.)  
(Kaleodon)  
Beecham, T.  
Bronnley, H., & Co.  
Jewsbury & Brown  
Lakeman, J. J.  
Quelch, H. O.  
"Salvine"

**DISINFECTANTS**

Calvert, P. C., & Co.  
Fletcher Bros. & Co.  
Government Sanitary Co.  
Grindley & Co. (Lim.)  
Jeyes' Fluid  
National Chemical Co.  
Sanitas Co.  
Seabury & Johnson

**DOG MEDICINES**

Spratts Patent (Lim.)

**DRUGGISTS' SUN.**

Ayrton & Saunders  
Bailey, M., & Co.  
Barclay & Sons (Lim.)  
Beaulette Co.  
Evans, Leecher & Webb  
Evans, Sons & Co. (Savins)  
Fordham, W. R., & Sons (Lim.)  
Gilbertson, H., & Sons  
Hockin, Wilson & Co.  
Iris & Co. | Jackson, W. & H.  
Kay Bros. (Lim.)  
Lynch & Co.  
Maw, S., Son & Thompson  
May, Roberts & Co.  
Newbery, F., & Sons  
Quelch, H. O.  
Rankin, W., & Sons  
Sanger & Sons  
Schulze & Co.  
Scriven, G.  
Taylor, A. J., & Co.  
Thompson, Walters, Hole & Co. (Lim.)  
Tidman & Son  
Toogood W.  
Wood, Vincent  
Young, J.

**DRUG GRINDERS**

Jordan & Co.

**DRUG MILLS**

Burroughs, Wellcome & Co.

**DRUMS**

Berger, F.

**EAU DE COLOGNE**

Farina, J. M.  
Martin, Maria (Nun)  
Oscar, Moonlich & Co.

**ELECTRIC APPAR.**

Darton, F., & Co.  
Gent & Co.  
Orme & Co.

**EMBROCATION**

Burn, H.  
Day & Sons  
Elliott, Sons & Co.

**ENEMAS**

Evans, Sons & Co.  
Fuerst & Son  
Scriven, G.

**ENGRAVERS**

Barker, W., & Son  
Corrann, J. R.

**ESSENCES**

Beckett, W. | Berger, F.  
Boehm, F.  
Boulton, J., & Co.  
Brathay & Hinchcliffe (Lim.)  
Burgoyne, Burdidge & Co.  
Bush, W. J., & Co.  
Cummock, J.  
De Carle & Son  
Goodall, Backhouse & Co.  
Hay, W.  
Idris & Co.  
May & Baker (Lim.)  
Newball & Mason  
Oldfield, Pattinson & Co.  
Stevenson & Howell  
Tyrer, P. (Anchovies)  
Tyrer, T., & Co.  
Woolley, Sons & Co.

**ESSENTIAL OILS**

Berger, F.  
Boehm, F.  
Bush, W. J., & Co.  
Clay, Dod & Co.  
Cooking & Co. (Japan Pepper)  
Cummock, J. (mint)  
Dodge & Olcott  
Evans, Sons & Co.  
Haller, G., & Co.  
Hodgkinson, Treacher & Clarke  
Largen, G. W.  
May & Baker (Lim.)  
Poppelreuter, W.  
Robert Frères  
Sozlo & Andrioli  
Sonlesinger, L.  
Stevenson & Howell  
Symes & Co.  
Tombarel Freres  
Treath, R. O.  
Vogt, G., & Co.  
Warrick Bros.  
Wright, Layman & Umney

**ETHER**

Duncan, Flockhart & Co.  
Howards & Sons  
May & Baker (Lim.)  
Robbins, J., & Co.  
Tyrer, T., & Co.  
White, A., & Sons  
Woolley, Sons & Co.  
Wright, Layman & Umney

**EUCALYPTUS**

White, H. I. P. Co.  
Drysdale, J. W. & Co.  
Evans, Leecher & Webb  
Fletcher, Fletcher & Stevenson  
Vogt, G., & Co.

**EXTRACTS, FLUID**

Allen & Hanbury  
Barber, G., & Co.  
Burgoyne, Burdidge & Co.  
Evans, Sons & Co.  
Fletcher, Fletcher & Stevenson  
Hearon, Squire & Francis  
Hooper, B., & Co.  
Lloyd, T. Howard & Co.  
Moss & Co.  
Potter & Clarke  
Vogt, G., & Co.  
Wright, Layman & Umney

**EXTRACT MEAT**

Armon & Co.  
Australian Meat Co.  
Brano & Co.  
Bush's Liquid Beef  
Dennayer's Peptone and Ex-

**FEEDING BOTTLES**

Brellitt, E., & Co. (Lim.)  
Burroughs, Wellcome & Co.  
(Thermo Safe)  
Orrling, G., & Co.  
Evans, Sons & Co.  
Henri, E. A., & Co.  
Hockin, Wilson & Co.  
Jackson, W. & H.  
Kliner Bros.  
Lynch & Co.  
Munro, E., & Co.  
May, Roberts & Co.  
Maw, S. Son & Thompson  
Thompson, Walters, Hole & Co. (Lim.)  
Toogood, W.

**FOOD (Infants' & Invalids')**

Allen & Hanbury  
Baelz, R., & Co.  
Benger's Food  
Brand & Co.  
Clarke's Food Warmer  
Evans, Sons & Co.  
Goodall, Backhouse & Co.  
Hearon, Squire & Francis  
Idris & Co.  
King, F., & Co. (Lim.)  
Liebig Co.  
Liquor Carnis Co. (Lim.)  
Natural Food Co.  
Nestlé, H.  
Pure Beef Co.  
Spiking & Co.

**FILTERING**

Berkfeld Filter Co.  
Fordham, W. B., & Sons (Ld.)  
Mawson, Swan & Weddell  
Sillitoe Carbon Filter Co.

**FLESH GLOVES**

Pattison, G.

**FLY PAPERS**

Tunbridge & Wright

**FORMULA**

Brooks, T.

**FRUIT JUICES**

De Carle & Son

**GINGER ALE**

Hay, W. (Essence)  
Mills & M., & Co.

**GLYCERINE**

Blyton, Astley & Co. (Pastilles)  
Boehm, F. | Fink & Co.  
Fuerst Bros.  
Greiff, R. W., & Co.  
Lyn & Co.  
Price's Ointment Co.  
Taylor, A. J., & Co.

**GRANULAR PREP.**

Blshop, A., & Sons  
Evans, Sons & Co.  
Hearon, Squire & Francis  
Kerfoot, T.  
Wright, Layman & Umney

**GUM**

Pink & Co. (Aralia, &c.)  
Greiff, R. W., & Co.  
Levermore, Aug., & Co.  
Tynler, A. J., & Co.

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Chesbrough Mufg. Co.  
Edwards & Co.  
Truefitt, H. P. (Lim.)

**HERB BEER EXTS**

Adams, B.  
Newball & Mason  
Oldfield, Pattinson & Co.  
Potter & Clarke

**HERBALISTS**

Newball & Mason  
Potter & Clarke

**HOMOEOPATHIC**

Eppe, J., & Co.  
Keene & Achwell  
Knight, E. C.  
Leath & Ross  
Myers, G.  
Thompson & Capper  
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**HOSPITALS**

London Homoeopathic

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Duncan, Flockhart & Co.  
Fellowe  
Fletcher, Fletcher & Co.  
Symes & Co.  
Tyrer, Thomas, & Co.

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Burroughs, Wellcome & Co.  
Clarke's Inhaler  
Hockin, Wilson & Co.  
Lynch & Co.  
Maw, S., Son & Thompson  
Sprinco, Co., The  
Toogood, W.

**INK [SEE MARKING INKS]**

Bewley & Draper

**INSECTICIDES**

Keating, T.  
Maw, S., Son & Thompson  
Steiner & Co.

**INSURANCE**

London and Lancashire Fire Insurance Co.

**KETCHUP**

Tyrer, P.

**KOLA**

Armbricht, Nelson & Co.  
Christy, T., & Co.  
Van Hargen J.

**LANOLINE**

Burroughs, Wellcome & Co.

**LARD**

Ewen, J., & Sons  
Idris & Co.  
Riddle, A., & Co. (Stower's)

**LIME JUICE**

Haynes, G., & Co.  
Liverpool Lint Co.  
Maw, S., Son & Thompson  
Newsome, G.  
Robinson & Sons  
Seabury & Johnson

**LINT**

Haynes, G., & Co.  
Liverpool Lint Co.  
Maw, S., Son & Thompson  
Newsome, G.  
Robinson & Sons  
Seabury & Johnson

**LITHIA**

Fuerst Bros.

**LOZENGES**

Allen & Hanbury  
Blyton, Astley & Co.  
Gibson, R., & Sons (Manfrs.)  
Hill & Son  
Kerfoot, T. | Pascall, J.  
Raines & Co.  
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Burroughs, Wellcome & Co.  
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Mellin, C. | Obison, A.  
Pontifex & Wood (Lim.)  
Schlack, F. W.  
Werner & Pfleiderer

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Bush, W., Son & Co.  
Evans, Sons & Co.  
Greiff, R. W., & Co.  
Henry, T. & W. (Oalined)  
Hill & Sons, A. S.  
Kerfoot, T. (Oiltrate)  
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Allen & Hanbury  
Baelz, R., & Co.  
Burroughs, Wellcome & Co.  
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Drysdale & Co.  
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Reade Bros. & Co. (Bisonite)  
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**MANICURE PREP.**

Dr. Paul's

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Richards, J. M.

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Burroughs, Wellcome & Co.  
Day, Son & Hewitt (Veterinary)  
Day & Sons (Veterinary)

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A 1 Menthol Depot, A. W.  
Shirley, Proprietor.  
Cooking & Co.  
Evans, Sons & Co.  
Hockin, Wilson & Co.  
Seabury & Johnson  
Thompson, Walters, Hole & Co. (Lim.)  
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Perken, Son & Baymen.

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Patent Medcns

**PATENT MEDCNS**

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Atkinson & Barber (Infant Preserv)  
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Boo & Pure Drug Co. (Lim.)  
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Edwards & Son  
Evans, Leecher & Webb  
Evans, T.  
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Globe Chemical Co.  
Goodall, Backhouse & Co.  
Guy's Tonic  
Hakka Cream (A. P. Bush & Co.)  
Holloway (Pills and Oint.)  
Kroat Halviva  
Lalor (Phosphodyne, &c.)  
Mackenzie, Dr. (Catarrh Curo)  
Maw, Roberts & Co.  
Morison's Ointment  
Newbury & Sons  
Roberts & Co. (Foreign)  
Sequah (Lim.)  
Spickernell, Mrs. (Chl. blain cuso)  
Sutton, W., & Co.  
Thompson, Walters, Hole & Co. (Lim.)  
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Wilcox & Co.  
Wilson, A. (Runter's Nervine)  
Woodward, W.  
Young, J.  
Zirizmah

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Burroughs, Wellcome & Co.  
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Fletcher, Fletcher & Stevenson  
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Greenall, T. S., & Son  
Legrand, L.  
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Mulhons, F.  
Newbery & Sons (Berdoss)  
Oftinger, E.  
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Price, Napoleon & Co.  
Price's Patent Candie Co.  
Robert Freres  
Kosmarine Manufg. Co.  
Sainsbury, S. (Lav. Water)  
Schlesinger, L.  
Shirley, A. W.  
Sozio & Andrioli  
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Tombarel Freres  
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PATENT

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are very much improved by its use.

**DIRECTIONS.**—Hold the "BEAULETTE" flat against the neck of the bottle in a line with the centre of the label with the left hand, then loop the elastic ring over the stopper or cork with the right.

PRICE 4/- PER GROSS.

SOLD BY ALL THE LEADING WHOLESALE HOUSES.

Suitable alike for Sprinkler Bottles or Paper Caps.

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## HANDSOME UPRIGHT SHOW CASE.

Polished Ebonised Wood, with  
3 Glass Shelves, and Drawer,  
&c.

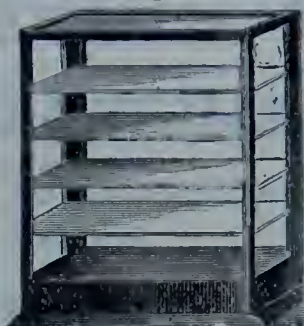
A MARVEL OF CHEAPNESS.

SIZE— $\begin{cases} 19 \text{ inches High.} \\ 15 \text{ " Wide.} \\ 7\frac{3}{4} \text{ " Deep.} \end{cases}$

PRICE

**18/-**

EACH.



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Hinged with Mirror Backs, each 3/-, 4/-, 5/-, 6/- (see Catalogue).

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GRASSE.

ALPES MARITIMES



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## DISTILLERS OF ESSENTIAL OILS

Orange, Rose, and Elder Flower Waters,

MANUFACTURERS OF

FLOWER POMADES, PERFUMED OILS, FLOWER EXTRACTS.

Special Products for Manufacturing Perfumers and Toilet Soap Makers.

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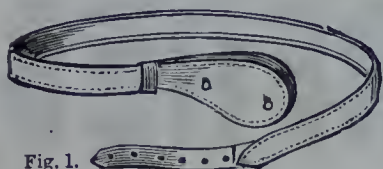


Fig. 1.

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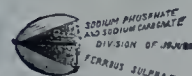
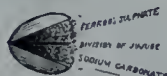
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We have recently introduced a new food agent and aid to the digestion of farinaceous substances under the above name. This preparation is manufactured by a modification of the Kepler process for making the well-known Kepler Extract of Malt.

The Kepler Essence of Malt contains a large amount of diastase and natural mineral phosphates, and a considerable amount of tissue-forming substances. The immense superiority of this preparation over ale and stout is at once apparent when the process of manufacture is considered in detail. In making ale and stout, the carbohydrates (so valuable as nutrient material) and the diastase (a most important principle of Malt, being of special service in errors of nutrition accompanied by digestive derangement) are sacrificed for the production of alcohol: whereas in the Kepler Essence of Malt, these are carefully preserved intact. This essence is therefore an ideal aid to digestion and nutrient agent. A wineglassful of the Kepler Essence of Malt contains more elements of nutrition than a pint of the finest alimental stout.

The flavour of the Essence of Malt is delicious. It is admirable as a table beverage, when diluted with aerated water, and as an addition to milk for infant and invalid dieting, for it sweetens it and facilitates its prompt and perfect digestion. The essence may be taken in coffee, gruel, aerated or plain water, wine, or mixed with any farinaceous pudding. As an addition to the food for young children, its value cannot be over-estimated; it increases the value of all farinaceous food, and prevents the starch in such food and large clots of curd in milk diet overtaxing the power of the digestive functions.

For lactating women, the Essence of Malt (Kepler) contains many desirable properties; it quickly increases the flow and enriches the quality of the milk. It is serviceable as a laxative for young children, especially when constipation depends upon the defective digestion of starch. As a food beverage, it cannot fail to be productive of the highest benefit, either in acute disease or during convalescence; in fact, wherever there is defective nutrition, the Kepler Essence of Malt is useful as a nutritive food.

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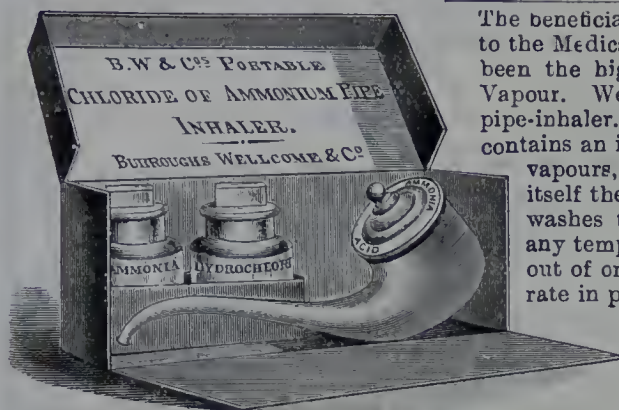
**NOTICE.**—Our supplies of 5-lb. Tins are beginning to come forward, and we are distributing them among the Wholesale Houses as rapidly as they come to hand. We hope very shortly to fill all Orders for this size promptly. We have a full stock of all other sizes.

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The beneficial effects of inhalations of Ammonium Chloride have been long known to the Medical Profession, and the only objection to the more extensive use has been the high cost of instruments for the inhalation of Ammonium-Chloride Vapour. We have, however, at the instance of Dr. HOOKER, introduced a portable pipe-inhaler. It is composed throughout of earthenware. The bowl of the pipe contains an inner vessel, perforated at the base, to promote combination of the vapours, and is divided down the middle by a septum. In the base of the bowl itself there is placed a sponge, which, when saturated with water, thoroughly washes the fumes. This Inhaler possesses the following advantages over any temporary apparatus:—It is extremely portable, and not liable to get out of order easily. It may be thoroughly cleansed by washing, and is moderate in price. This Inhaler may be employed by patients in any position, or while walking, sitting, or reclining. The Inhaler, together with two stoppered bottles, containing Hydrochloric Acid and Solution of Ammonium for use with the instrument is supplied to the Trade at 5s.

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HIGHEST AWARD—ADELAIDE, 1887, and MELBOURNE, 1888.

*The Lancet* describes it as "Mr. Benger's admirable preparation."

*The London Medical Record* says: "It is retained when all other foods are rejected. It is invaluable."

*The British Medical Journal* says: "Benger's Food has by its excellence established a reputation of its own."

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ESTABLISHED 1858

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The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

Tasmanian Pharmaceutical Society.

Otago Pharmaceutical Association.

South African Pharmaceutical Association.

The Central Association of New Zealand.

## Literary Contents.

PAGE	PAGE
Bankruptcy Reports .....	583
Commentary .....	592
Correspondence:—	
Pharmacy Act Prosecutions;	
Medicine-stamp Act, &c. . .	602
Legal Queries .....	603
Miscellaneous Inquiries ..	603
Deaths .....	682
Deaths of Arrangement .....	587
Editorial Comments:	
Methylated Spirit and Medi-	
cines .....	533
Quinine and Java Cinchona	589
Protection of Trade .....	590
Artificial Salicylic Acid ..	591
Advertisements Objectively	
Considered .....	591
English News .....	574
French Pharmaceutical News..	577
Gazette .....	534
Irish News .....	575
Legal Reports .....	595
Major Examination Questions	593
Marriages .....	582
New Companies .....	584
Notes of Novelties .....	596
Oil in Pharmaceutical Pow-	
dered Rhubarb. By B. S.	
Proctor .....	585
Personalities .....	579
Pharmaceutical Society of	
Great Britain:—	
Evening Meeting .....	580
Practical Notes and Formulae..	597
Reviews .....	592
Sale of Goods. By a Solicitor..	586
Scotch News .....	576
Trade-marks Applied for .....	582
Trade Notes .....	584
Trade Report .....	598

## Summary.

THE Chemists' Ball has been the feature of the week.

WE print an instructive article on the Sale of Goods by Sample from one of our legal contributors.

THE State of New York proposes to have the ingredients of patent medicines printed on the labels.

THE Pharmaceutical Society has obtained judgment for 30*l.* in penalties from a Penzance shopkeeper for an infringement of the Pharmacy Act.

IT will be seen from our Legal Reports that Salmon & Ody are threatening chemists who sell trusses of their design but not made by them.

AN International Botanical Congress at Genoa is announced for September; and the International Chemical Congress took place this week at Geneva.

MR. B. S. PROCTOR, in a note printed by us this week, shows that some commercial powdered rhubarbs still contain fixed oil largely in excess of the natural percentage.

IT appears, from particulars which we give in our Foreign News, that many Belgian medical practitioners are accused of keeping their stocks of drugs in a grossly careless manner.

WE print the questions given at the Major examination this week, to which are added model answers. These are useful to students and will show old ones what they have missed.

THERE seem to be good times coming for quinine holders. The supply of the crude material is such that an early rise is probable. The facts are given in our Trade Report this week and in Editorial comments.

A PROFESSOR of chemistry at Ann Arbor University and a student of chemistry at the Paris School of Medicine have been fearfully injured by explosions of chemicals. Our Paris correspondent gives particulars of the latter accident.

MESSRS. HELBIG AND PASSMORE have completed an investigation on salicylic acid, in which they show that fractional crystallisation with silver is the best means of determining its quality. They also find that pure sodium salicylate contains no water of crystallisation.

AN interesting evening meeting of the Pharmaceutical Society was held in London last week, at which the Curator described the most interesting specimens received during the year. His remarks on Colombia cinchona were particularly valuable. Mr. Holmes has at last identified the true source of Pernambuco jaborandi.

## AT THE COUNTER.

"ONE pennyworth horridous pills, and if not that name, some name like that." This was sent to a Greenock chemist. What kind of pills was wanted?

"POOREST PLASTER," "Laymonia" (stramonium), and "Something to cure an illustrated throat," are specimens sent from a Midland cathedral city.

A HASTINGS chemist says a lady visitor, of a certain age, and with anti-influenza views imbued, approached the man in charge a few days ago, and asked for 1 oz. of the "animated tincture of quinine."

FROM Mr. Walker, Stockport Road, Manchester, the following articles have been asked for lately:—"A 6*d.* Packet of Vanish's Food"; "2 oz. of Perrock's Hydrated Ridgen"; "Another Bottle of Diabolic Lotion and be sure to let it be Diabolic"; "A 3*d.* Box of Mercurial Ointment for Cancer Parasites."

"AATSOLING oil" is the nearest a classic Cambridge customer can get at it; and in the same seat of learning "infection of senna" and "affectionate senna" are asked for; while the pharmacist who sends us these items adds that they find pulv. glycyrrhizæ co. B.P. answer all tests for "liquid powder."

MR. WILLIAMS, of Aldershot, sends us a packet of orders from the camp. There is a military cachet in the order for "2*d.* of sweet spirits of Knighter," but the other notes are not apparently affected by the *genius loci*. One customer wants "Crude Petroleum Gilley 6," and this, and the one for "gleasel acatic acid," may be of Irish origin. A young lady hopes to catch a gallant warrior by performing her handkerchief with "white moses." Other customers send for "read sep it ointment," "ant Belset pills," "sponge Epplin," "Godfer Cogley," "Philcosin pills," "Yellow meselicun," "syrup of arround," and "peroxide of Irgine."



## English News.

### The Neighbour and the Shop-front.

Maria Thompson, spinster, plaintiff, *v.* Walter Edward Stokes, defendant.—This was a case in which Maria Thompson, of Sidcup, sued Walter E. Stokes, chemist, of Old Brompton, for an injunction as to alleged encroachment upon her premises, likewise for 100% damages for depriving her premises of the light and air they previously enjoyed. The case was tried at Rochester, before H. U. Vorey, Esq., Official Referee of the High Court of Justice, on March 22 and 23. Mr. Vennell, barrister, instructed by Mr. J. Robinson, solicitor, of Strood, appeared for the plaintiff, and Mr. Lionel Hart, barrister, instructed by Mr. Charles Winch, solicitor, Arundel Street, London, appeared for the defendant. The referee has now made his award in favour of the defendant, refusing both injunction and damages, with costs against the plaintiff.

### Cheap Waters.

On April 9 we reported tenders for mineral waters submitted to the Islington Board of Guardians, and we stated that the contract was given to Messrs. Idris & Co., at prices named in the paragraph. Respecting this report we have a letter from Messrs. Idris & Co., dated April 14, stating that the report is not correct. They add that they never offered lemonade in syphons at 1s. 9d. per dozen, and that theirs was not the lowest tender. We have also a letter written on the same date by Mr. H. T. Butler, secretary of the Chemists' Aerated and Mineral Waters Association (Limited), stating that it was their tender which was accepted.

### The Chicago Exhibition.

Exhibitors in the English section of the World's Fair are not to be charged for space, as the Government has advanced sufficient to pay all expenses—viz., 60,000%.

### Newcastle-on-Tyne Chemists' Assistants' Association.

The annual business meeting of this Association was held on Wednesday, April 13, Mr. G. F. Merson, president, in the chair. The report of the apprentices' competition showed that eight had entered, and the prize-winners were John Henry Taylor (first) and Edward Taylor Wilson (second). Mr. B. S. Proctor presented the prizes, and commented on the advantages of such competitions. The treasurer's report was then read. It showed a balance of 2% 15s. 10d. to the good. The secretary's report indicated a slight increase in the number of members, but a falling-off in the attendance, this being attributed to evening classes being held at the Science Schools on the same night. The report also contained a recommendation to fix the dates of meeting for next session on such nights as would not interfere with the classes in any way. The following office-bearers were elected for next session:—President, Mr. G. F. Merson; vice-president, Mr. Hedley Pattinson; secretary, Mr. A. Russell-Bennet; assistant secretary, Mr. Robert MacClumpha; and treasurer, Mr. F. R. Dudderidge; with Messrs. George Cormack, A. J. Johnston, J. Mackenzie, R. T. Ord, F. Park, and E. T. Wilson as members of committee. A prize committee was also appointed.

### Fraudulent Sale of Essential Oils.

In this case the prisoners, Thomas Hillier, William Hodges, and Frederick Simpkins, came up for sentence at the Old Bailey. At the previous hearing in March it was arranged to adjourn the case, with the hope that in the meantime restitution would be made by the prisoners to Mr. John Allen, of Thornton Heath, and Mr. Geo. Gentry, of Newington, whom they had conspired to defraud of 200% and 150% respectively, by falsely representing a quantity of foreign essential oils to be genuine Mitcham oil. On behalf of the prisoner Simpkins it was urged that he had now made restitution to the extent of 200%. Hodges also had returned 50%. The Common Serjeant sentenced Hodges to six months' hard labour, Hillier to four months' hard labour, and bound over Simpkins to come up for sentence when called upon.

### Fires.

A fire broke out on April 18 on the premises of Messrs. Needham Bros., chemists, 17 North Street, Leeds, by the upsetting of a candle, which set fire to some cotton wadding. The flames were extinguished before any serious damage was done.—Mr. Holroyd, chemist and druggist, extinguished a fire which broke out in his shop at Kirkstall Road, Leeds, recently, by the use of eleven syphons of soda-water, which he squirted on to the flames. The damage sustained will be lowered to 5% owing to Mr. Holroyd's prompt action.

### Called to see the Cascara Works.

At noon on Tuesday the busy chemists at work within Galen Works, Deptford, were startled by a thunderous shaking of the outer gates, followed instantly by these being burst open, when there appeared between them, panting with fright and exertion, a fine young horse belonging to Mr. Carlo Gatti. More was behind in the shape of an ice-cart of the familiar yellow colour. In bursting the gates open a shaft of the cart had passed through the small door with which one of the gates is provided, and the latter being hung in stout ironwork let into the stone, the horse was pulled up and held till his fears were soothed. Some damage was done to the gate, and some to the man in charge of the cart—we believe not serious. The locality is excellently adapted for frightened horses, Wilson Street being short and quiet, and Messrs. John Moss & Co.'s gates stretching across the end of it.

### Charge of Stealing Tartaric Acid.

At the Southwark Police Court last week, before Mr. Fenwick, Stephen Stanley and Thomas Theobald, described as carmen, were charged with having stolen tartaric acid valued at 63%, the property of Messrs. Pearce, Duff & Co., baking-powder manufacturers, Weston Street, Bermondsey. A man named Germany, employed at neighbouring premises, said that on several occasions during August and September of last year he noticed the two prisoners enter the premises of the prosecutors by means of a key, and, after remaining there for some little time, they left with heavily-laden sacks upon their shoulders. He had previously known the prisoners as having been in the employ of Messrs. Pearce, Duff & Co. On one or two occasions he followed to a house in the Old Kent Road, where the stolen goods were deposited. Mr. H. I. Sydney appeared for the prosecution, and Mr. Washington defended the prisoners. The magistrate remanded the prisoners for a week.

### Charge Against a Dispenser.

At the South London Sessions last week, before Sir P. H. Edlin, Percy Hasenbalg, who described himself as a dispenser, was indicted for having obtained a quantity of serge and other goods, to the extent of 17%, from Messrs. Jones & Higgins, drapers, of Rye Lane, Peckham, with intent to defraud. The prisoner is a German, and is well connected. He has held positions as dispenser of medicine in various institutions. He had married a young English lady. The charge against him was that he went to the prosecutors' shop and gave orders for goods in the name of a well known customer, and having obtained the property, pledged it with various pawnbrokers. Sir P. H. Edlin sentenced the prisoner to six months' imprisonment with hard labour.

### Carbolic-acid Poisonings.

Charles Cross, aged 22, a blacksmith, of Burlington Street, Liverpool, had been in a desponding state of mind since the death of his mother in March. On Monday of last week he took some carbolic acid, from the effects of which he died the next day.

An inquest was held on Saturday last touching the death of an unknown woman who poisoned herself in Dale Street, Liverpool, on April 12, by drinking carbolic acid. An open verdict was returned.

On Saturday Dr. Macdonald held an inquest at Shore-ditch regarding the death of Hannah Talbot, aged 30, the wife of a butcher. It transpired that while her husband was at work she pawned a fender, got drunk, and when he came home he found her lying on the bed dead. A bottle and



cnp, which had contained carholie 'acid, were 'on tho table. At the inquest a doctor deposed that death was due to carholie-acid poisoning.

#### A Constollation in Kepler.

Messrs. Burroughs, Wellcome & Co.'s Dartford employés concluded their series of winter entertainments last week at the Conservative Hall, Dartford. During an interval Mr. A. Searl, F.C.S., the manager of the Phoenix Mills, said that the entertainments had been an entire success, and expressed the thanks of the workpeople to the firm for great assistance in meeting the expense of the entertainments. Mr. H. S. Wellcome, who was present, suitably replied, expressing his satisfaction that the relations between the firm and their employés were so happy.

#### Upwards, Eagle-like.

Messrs. Blyton, Astley & Co., manufacturers of medicinal lozenges, &c., of the Eagle Laboratories, Manchester, are finding their present works too strait for their growing business. They have been fortunate in obtaining a large building adjoining their present works, which they are now fitting with plant and power, and this, they think, will provide sufficient accommodation for some time. Sulphur tablets and granular effervescent citrate of magnesia are in lively demand just now.

#### Midland Counties Chemists' Association.

A meeting of the members of this Association was held on Tuesday evening, at the Mason College, Birmingham, Mr. A. Southall, President of the Association, in the chair. Mr. W. T. Elliott, L.D.S., read a paper on "Some Observations relating to the Structure and Disintegration of Teeth." The subject was illustrated with lantern slides, and at the conclusion of Mr. Elliott's remarks he was accorded a vote of thanks. On Wednesday afternoon a meeting of the Council was held at the Temperance Institute, Corporation Street, when arrangements were made for the following cricket-season.

#### Grate Varnish Fire.

About nine o'clock on Wednesday morning a fire broke out on the premises of Messrs. Knott Brothers, chemists, Astley Bridge, Bolton. George Turner, one of the assistants, went into the cellar to stop a leakage in a 40-gallon barrel of grate-varnish. Some time after he had finished his work and returned to the shop, Mr. Herbert Knott noticed smoke issuing from the cellar, and on going down to ascertain the cause, found the barrel of varnish enveloped in flames. With all possible speed he secured a bucket and threw some water on the flames, and Mr. Percy Knott and three assistants also rendered aid before the fire-brigade came. Then, although they were nearly overpowered by the dense smoke, the firemen succeeded in stopping the fire before it became general, but not until a good deal of damage was done. This is estimated at between 300*l.* and 400*l.*, and is fully covered by insurance.

#### The Chemists' Ball.

This popular event came off at the Portman Rooms, Baker Street, on Wednesday night. This was the twenty-sixth repetition of the function, and on the floor this year there was a fair sprinkling of those who danced at the first Chemists' Ball at Willis's Rooms. This refers to men only. The ladies present on Wednesday night were, as far as our observer could estimate, all under twenty-six. The ball this year was originally fixed for January 20, but in consequence of the death of the Duke of Clarence, and his funeral on that date, postponement was necessitated. The rooms were not available again before Lent, so that the occasion had to be fixed three months later. The committee expected that they would thus catch the young man in that season when his fancies lightly turn to thoughts of love, regardless of expense. The gentle spring can hardly be said, however, to be entitled to much credit for the success of the ball—for a success it was generally voted to be. The tickets actually surrendered at the doors numbered 233, which was four more than the highest total previously reached since the ball has been held at the Portman Rooms. There were some complaints of the excess of ladies over gentlemen, and there were suggestions that the committee should endeavour next

year to rectify the inequality by some tariff modification. After supper Mr. Cartoighe made a speech from the chair, proposing "Success to the Chemists' Ball" and "The Ladies." When he sat down there were loud calls for the honorary secretary, Mr. A. H. Mason, whose admirable performance of duties twice in one season was thus cordially but informally acknowledged. In accordance, however, with the etiquette of the institution, the honorary secretary did not make a speech. The committee who aided Mr. Mason in carrying through the arrangements consisted of Messrs. Cartoighe (chairman), Attfield (honorary treasurer), R. Bremridge, J. W. Bowen, W. H. Francis, P. C. Maitland, T. C. W. Martin, A. C. Preston, and H. A. Thomas.

### Irish News.

#### Contract.

Mr. Samuel Boyd, chemist and druggist, 46 Mary Street, Dublin, has been appointed by the Board of Public Works contractor for supplies of drugs, oils, chandlery, drysalteries, &c., required by Government departments in Ireland during the ensuing three years.

#### Rumoured Prosecutions under the Pharmacy Act.

A number of prosecutions by the Pharmaceutical Society of Ireland are expected to take place in Dublin shortly. Should rumour be correct as to the names of the establishments in question, the cases will prove of more than ordinary importance.

#### Attempted Suicide.

A young woman, named Rose Mooney, employed as a servant at Kingstown, was charged with attempting suicide by drinking a poisonous lotion prepared for the use of a dog, of which she swallowed half a cnful. Evidence was given by a fellow-servant to the effect that Mooney had been "going up and down Kingstown trying to obtain poison at the shops." The Magistrate ordered the prisoner to find bail in 10*l.* to be of good behaviour, or in the alternative 14 days' imprisonment.

#### The Surgeons and Pharmacy.

The proposed school of pharmacy scheme has not received the approval of the Council of the Royal College of Surgeons in Ireland.

#### Smothered after Taking a Narcotic.

On April 11, at Ranelagh, Duhlin, an inquest was held on the body of a young woman named Agnes Parke, who was found dead in her bedroom in a sitting posture, with her head pressed down in her hands, on the bed. Dr. McDowell, who had been in the habit of attending her, said she was in the habit of taking laudanum and chloroform, of the ill effects of which he had warned her. Another witness said she used to obtain narcotics from various chemists by representing herself as a hospital nurse. The jury found that the deceased was smothered while under the influence of a narcotic, which she took herself.

#### The Cork Case.—Newspaper Controversy.

In the letter from the President of the Pharmaceutical Society of Ireland to the *Cork Constitution*, published in the report of the proceedings of the Council of that Society in this journal of April 9, that gentleman, replying to Messrs. William Harrington & Son's (Limited) letter which had appeared in that paper, asked the writers to inform the public of Cork by what right or title they keep open shop for the compounding and sale of medical prescriptions and use the title "dispensing chemists," as he could not find their name on the register of pharmaceutical chemists. To this Messrs. Harrington replied that they had in their establishment no less than five pharmaceutical chemists, two chemists and druggists, and one registered druggist—all fully qualified and registered by the Pharmaceutical Society of Ireland. Their dispensing, retail, and wholesale departments, they added, are each under the personal supervision of fully-qualified pharmaceutical chemists of the Irish Society.



Indeed, there is no establishment in Munster, and perhaps in all Ireland, they claimed where so many fully-qualified persons are employed.

The next day a letter appeared in the same paper, signed "James Arnold," commenting sarcastically on the proceedings of the Pharmaceutical Society. The writer thought it would have been better if the Society had admitted Mr. Selkirk as an *ad eundem* member, for surely this case will bring upon Irish pharmacists just retaliation, for the English Society will now defend their interests, and prevent Irishmen from practising in England holding an Irish licence. The President of the Irish Pharmaceutical Society would have acted more wisely (he added) if he had addressed circulars warning the licentiates of their Society that they were acting illegally if they prescribe for or visit any sick patient, extract teeth, vaccinate, or attempt any midwifery case. The writer understood that such illegal practices will, for the future, be watched and put an end to. To these communications Mr. Hayes replied, regretting that his position compelled him to re-appear in the *Constitution's* correspondence columns to correct misstatements. He pointed out that Messrs. Harrington's letter did not give the information asked for—namely, "who are the legally-qualified members of the firm, and what are their qualifications?" The Registrar would therefore apply, under the Amendment Act, for this information for the consideration of the Law Committee, the result of which the public would learn in due course. With regard to Mr. Arnold's letter, Mr. Hayes said the implication was that the Council of the Irish Pharmaceutical Society ought to have permitted what the Acts of 1863 and 1875 refused to allow—viz., reciprocity between the British and the Irish Societies—and pointed out that neither the Irish nor the British Pharmaceutical Society had the right to perform an act of grace which the law absolutely forbids. The Registrar of the Pharmaceutical Society of Great Britain had informed him that no case of an Irish pharmaceutical chemist attempting to practise in Great Britain on that qualification had come under his notice. As to supposed cases of infringement of the Medical Act by pharmaceutical licentiates, of these he knew nothing; but, as all other statements in this strange letter were utter fallacies, he could only take for granted that this was also entirely without foundation. Mr. Hayes concluded his letter by stating that these prosecutions are painful and odious in the extreme to himself and to his Council, but that they intend to do their duty without fear or favour.

#### Fire.

An outbreak of fire occurred in the area of the premises of Messrs. Woods, Webb & Co., wholesale druggists, Crow Street, Dublin, on Sunday last, owing, it is thought, to the dropping of a lighted match through the grating amongst some empty packages. The fire was promptly extinguished, the damage being slight.

#### Belfast News.

Mr. Nathaniel Kirkwood, registered druggist, Larne, has opened a drug-store in that town in a very central position.

A Belfast chemist, who was a witness in the Coroner's Court last Thursday, was rather closely examined by the Coroner relative to the sale of laudanum, half a teaspoonful of which had been inadvertently administered by its mother to a child three months old, causing its death. The chemist was able to demonstrate that he had fully complied with the law.

It is rumoured that, notwithstanding the evident determination of the Pharmaceutical Society to test the right of limited companies to act as dispensing chemists, a company is about being formed to carry on such a business on a large scale in Belfast.

The death occurred last week of an old member of the drug-trade, Mr. William J. Perrôt, who was formerly in business in the Grosvenor Road, but retired some years since. Mr. Perrôt did not qualify under the recent Act, but his daughter, with whom he since resided, was the first lady who passed the druggists' examination in Ireland, and carries on the business at Newtownards Road.

A notification of the Lord Lieutenant's sanction of the appointment of Dr. McKiney by the Pharmaceutical Council

as examiner for Belfast and the North of Ireland for assistants to pharmaceutical chemists appeared in the local newspapers on April 16.

## Scotch News.

### The Proposed New Glasgow Association.

The adjourned annual meeting of the Glasgow Assistant Chemists' Association took place on April 13. There was a fair attendance, and, besides assistants, several masters were present. Mr. Robertson, the secretary, in submitting his report for the year, stated that the office-bearers, whilst unable to congratulate the Association on any additions to the membership, could at least look with pleasure on the successful manner in which the syllabus for the past session had been carried through. The membership showed a slight decrease, but the accounts showed a balance of 17. 18s. in favour of the Association. The report was adopted. Mr. Bruce then moved that, with the object of increasing the usefulness of the Association, the word "Assistants" be deleted from the constitution and rules. He further suggested that divisional secretaries be appointed to canvass the different districts of the city. Mr. McKellar seconded, and the motion was carried unanimously. In the course of discussion Mr. Laing suggested that the meetings should be made more attractive by the introduction of other topics besides the dry facts of pharmacy. He also wanted the new Association to take in hand the revision of the price-list. Mr. Findlay thought they should give prominence at their meetings to questions of a purely pharmaceutical character, and Mr. McKellar threw out a word of warning against taking up such matters as the revision of the trade price-list—a rock upon which, he remarked, the old Masters' Association had struck. It was ultimately agreed to continue the present officers until September, when a general meeting of the trade is to be called. The question of Dr. Lees' proposed ambulance class for qualified assistants was next brought forward. Several gentlemen stated that if the class was to be held on Sundays they would not attend, one or two had no objection to that day, while one gentleman would attend it on no other day. A committee was appointed to arrange with Dr. Lees.

### The Recent Pharmacy Act Prosecutions.

The *Glasgow Daily Mail* has been alive with correspondence on the recent prosecutions in that city by the Pharmaceutical Society during the past week. *Belladonna* draws a pathetic picture of a patient dying because an unqualified assistant dare not supply a little laudanum. *Unqualified* thinks druggists should unite and sweep away such a farce as the Pharmaceutical Society. *W. H.* complains that the Society's detective should so regularly pass by the shops of subscribers to the Society. *Registered* says if the Society will but carry the warfare into the larger shops the whole body of chemists will rise up in rebellion and insist on the amendment or repeal of the Act. *Red Precip.* informs the *Mail* that he has been twenty years in the business, and has passed much more severe examinations than those of the Pharmaceutical Society, and if the law really does interfere with him and eminent men like him, "the law's a hass." *A Parent* is disposed to refuse to allow one of his sons to be apprenticed to a trade in which he will run so much risk. *Hyoscyamus* declares that the prosecutions are not conducted with clean hands; they might be directed against some of the examiners or members of the Council. *Wahoo* demands a reason for the erratic doings of the Society, failing which he will continue to consider their actions as tyrannical in the extreme. To these mostly ignorant and generally absurd criticisms an able and temperate reply signed "Pharmaceutical Chemist" was published in Tuesday's *Daily Mail*.

### Edinburgh Chemists' Assistants' Association.

The annual business meeting was held on Wednesday, April 13, Mr. Rutherford Hill, ex-president, in the chair. The report of the "Ainslie" pharmacy prize competition was



submitted, showing that the "Ainslie" prize had been gained by Mr. Alexander Cruickshank (95 per cent. of marks), and the "Aitken" prize by Mr. David Harley. The financial statement showed a balance of 24.4s. in hand. The secretary's report referred to the session as having been a very successful one, and the membership showed an increase of ten as compared with last year. The committee were specially indebted to Mr. J. Laidlaw Ewing, chairman of the North British Branch Executive, for the illustrated lecture which he gave recently. An unusually large number of very active members had left the town during the year, and a hope was expressed that others would come forward to fill their places. The reports were adopted, and arrangements made for next session.

#### Sulphuric acid Manufacture.

The Dundee Association had one of its most successful meetings last Thursday evening at the chemical department of University College, when a lecture was delivered on "The Manufacture of Sulphuric Acid," by Mr. John Foggie, F.C.S., assistant to Professor Percy Frankland. The process of manufacture of this familiar product was described in detail, with special reference to the visit of the members to the Vitriol Works at Carnoustie during the summer session. A clever sectional model of a complete sulphuric-acid plant was shown, which gave a very clear idea of the whole process. The lecture proved most interesting and valuable to the members, and the chairman, Mr. Charles Kerr, and Messrs. J. W. Russell and J. H. Thomson, and others who were present, took the opportunity of thanking Mr. Foggie.

#### A New Start.

Mr. Robert Speedie, who for some years was manager at Mr. J. M. Wilson's West-end branch, Edinburgh, is opening a new pharmacy in Crieff. This he is fitting up in walnut, the design being tasteful and modern. Mr. Speedie has got from New York an attractive mortar for outside display, which will be a new feature in the locality.

#### Edinburgh Pharmacy Athletic Club.

At a meeting held on Wednesday evening, Mr. Laidlaw Ewing in the chair, the temporary committee submitted draft rules, which were considered and adopted. Under them the club was named "The Edinburgh Pharmacy Athletic Club," open to pharmacists or those in the employment of pharmacists—the subscription being 10s. per annum for honorary members, 5s. for ordinary members, and 2s. 6d. for apprentices. The interim office-bearers were elected for the year. It is likely that there will be cricket, golf, cycling, swimming, rambling, and cross-country running sections. Ten honorary and sixty-eight ordinary members have already been secured.

## French Pharmaceutical News.

(From our Paris Correspondent.)

**A NOVEL FEEDING-BOTTLE.**—A recent advertisement in the *Petites Affiches* announces, "For sale, the patent of the 'Pedlins' feeding-bottle. Can be fixed to sewing machines, enabling the child to be fed by the mother while working."

**PLUCKED FINALLY.**—A pharmacist's assistant named Garin, having failed at his last examination and being without employment, resolved to commit suicide. He swallowed a strong dose of arsenic in a cup of coffee last Thursday at his room in the Rue Elzévir, and died unattended, apparently in horrible and prolonged agony.

**FRAUD ON A PHARMACIST.**—M. Vial, pharmacist, Rue Chateaudun, had an assistant who recently left his service. When he was gone it was noticed that one of the indian-ink stamps used in the establishment was missing, and since his departure several wholesale druggists have been swindled by means of false invoices bearing the stamp in question, as well as a perfect reproduction of M. Vial's signature. Last week a young man of 27 appeared at a druggist's to obtain delivery of certain goods, for which he presented the invoice. The order being for a large amount, the druggist sent to M. Vial

to ask if it were correct. The latter replied that he had ordered nothing, and the young man, who gave his name as Ernest Dumont, was arrested. He stated to the police that he had been sent to fetch the goods by a person unknown to him, who was to meet him at the corner of the Rues Turbigo and Reaumeur. The officers, however, not finding anyone at the spot indicated, retained Dumont in custody.

**POISONED BY CANTHARIDES.**—Under this heading was reported in *THE CHEMIST AND DRUGGIST* of October 31 last, the death of M. Acolas. The case came before the Criminal Court at Paris last week. The *post mortem* examination made by Dr. Vibert, and the unlabelled bottle found in the room of the deceased, proved that the cause of death was as stated, and that the deceased must have taken enough cantharides to kill thirty people. The case against Dr. Depouse, who wrote the prescription for the poison, was abandoned, as he proved that he had been a friend of the deceased for some thirty years, and knowing him to be an intelligent man did not fear to prescribe a medicament which he supposed was for external use. M. Henri Taffanel, the pharmacist's assistant who prepared the medicament, seems to have been under the same impression, but he omitted to inscribe the prescription on the register-book of poison sold. M. Prosper Sauvage, manager of the Pharmacy Blanche, where the mixture was made up, was absent at the time, but as he is responsible he was condemned to a fine of 500f.

**THE MEDICAL BILL.**—In an article in the current number of the *Union Pharmaceutique* M. Buchet heartily endorses the sentiments expressed by M. Crignon at the last meeting of the Paris Society of Pharmacy—*i.e.*, that if the new Medical Bill becomes law it will be to a great extent the death-warrant of French Pharmacy. He appeals to his colleagues to use their utmost influence with senators in this matter. The chief provisions of this Act, so far as they affect the pharmaceutical profession, were reported in this column on April 9. It may be added that one sufficiently curious anomaly is now removed. Under the old law, which, like most of the existing French code, was promulgated shortly after the Revolution, the doctor and the pharmacist had a privileged "claim" on the estate of deceased persons whom they had treated. But should their skill have procured the patient's recovery, the resuscitated moribund could disregard their claims as easily as those of any other creditors. The new law privileges their claims in the case of recovery as well as in the case of death. The dangerous article is that which allows doctors to dispense, and it is felt that this opens the door to grave abuses and must be contested with all energy.

**ACCIDENT WHILE EXPERIMENTING.**—On Wednesday last, at the Chemical Laboratory of the School of Medicine, Place de l'Ecole de Médecine, the neighbourhood was startled by a formidable explosion, followed by a sound of breaking glass. M. Gauthier, Professor and Director of the Laboratory, M. Marion, a young man of 19, and several students were present at the time. Several doctors hastened to the spot, and found M. Marion senseless and covered with blood, his forearm completely smashed, the hand only hanging by the tendons, and the left cheek cut open by the broken glass. The arm was immediately amputated just above the elbow, and the left eye was found to be so seriously hurt that ablation was necessary. M. Marion was then carried to the cabinet of Dr. Bronardel, and Dr. Despagne, oculist, was called in to extract two pieces of glass from the eye. The operations were skillfully performed, and it is hoped that the eye may be saved. M. Marion has been three years in the laboratory of M. Gauthier, who speaks in high terms of his capabilities and qualities. His parents are in business in the Boulevard Montparnesse. M. Gauthier gave the following explanation of the accident:—"On the evening preceding, the person who prepares the substances for me being absent, and as I was obliged to leave the laboratory myself, I asked M. Marion to make for me, in a light glass tube, a mixture of hydrocyanic acid and nitrous vapours, recommending him to act by the cold process in ice and salt. This mixture is only dangerous if the vapours are allowed to arrive at a red heat, or if a part of the substance experiences a violent shock. On Wednesday morning, as I had not returned, M. Marion, fearing to lose the fruit of his labours, had the unfortunate idea to seal the glass-tube by means of an enameller's lamp. He spoke



about it to M. Fauconnier, chief of the laboratory, who dissuaded him, and asked him to wait. My preparer, M. Hallopeau, had likewise warned him overnight of the danger. But M. Marion persisted, and, taking out the tube from the iced water, began to seal the neck by the aid of the lamp. This he succeeded in doing, but, not being contented with the result, and finding the glass too weak, he broke off the point, exposing the end directly to the action of the flames, and then the explosion took place. In my laboratory the material damage is relatively small—broken panes of glass, a table pierced, but no cracked walls—in fact, not 60 francs' worth of damage."

## Foreign and Colonial News.

**AN INTERNATIONAL CONGRESS OF CHEMISTS** is being held at Geneva this week. M. Friedel of the French Institute, has been elected president, and Dr. Gladstone and Signor Canizzaro vice-presidents. All countries are represented, and among the English delegates are Professors Ramsay and Armstrong.

**A DISASTROUS EXPERIMENT.**—Professor Edward Campbell, of the chemical department, Ann Arbor University, last week sustained serious injuries to his head and face while making some chemical experiments. His eyes were so badly injured that it has been found necessary to have one excised, and the sight of the other is despaired of.

**ACCIDENT IN A GERMAN CHEMICAL WORKS.**—An explosion occurred in Hauf's sulphuric-acid works at Feuerbach, near Stuttgart, on April 8, by which the greater part of the factory was destroyed. No casualties happened. The manufacture of picric acid, an important branch of industry in the factory, had been suspended a fortnight previous to the explosion.

**HAARLEM OIL IN AMERICA.**—The exports of "Haarlem oil" from Amsterdam to the United States in the first quarter of the present year amounted to \$3,794 worth, against \$2,623 worth in the first quarter of 1891. The oil, we believe, is mostly destined for use in the Dutch agricultural settlements in Iowa, Wisconsin, and other Middle and Western States.

**MILKMEAN UNJUSTLY CONVICTED OF ADULTERATION.**—A large number of milk-sellers have been fined and otherwise punished in Potsdam in the course of last year, who are now shown to have been innocent of the charges of which they were convicted, as it appears that the galactometer used by the authorities for the examination of milk is an untrue one, and registers one half-degree less than it should. The Berlin chemist who made this discovery is of opinion that very many of the galactometers now officially used in Germany are in the same condition.

**INTERNATIONAL BOTANICAL CONGRESS IN GENOA.**—An international gathering of scientists will assemble in Genoa from September 4 to 11 next, on the occasion of the celebration of the quarcentenary of the discovery of America by Columbus, whom Genoa claims as a son of her territory if not of her city, although the claim is of more than doubtful tenability. One of the principal features of the celebration will be an international botanical congress, to which Professor O. Penzig, of Genoa University, is inviting the principal pharmaceutical organisations of the world. The new botanical institute of the University—a gift of Mrs. Thomas Hanbury—will be opened on that occasion.

**AN ALLEGED SIBERIAN LEPROSY CURE.**—An English lady, Miss Marsden, who has devoted herself to the nursing of lepers, has just returned to Europe from a journey to Yakutsk, in Eastern Siberia, undertaken by her in search of a plant which was reputed to grow "somewhere" in the Yakutsk province (a territory larger than any European country except Russia), and to be an unfailing cure for leprosy. Miss Marsden, who was specially recommended to the Tsarina by the Princess of Wales, received every assistance from the Russian officials in her mission. She did succeed in finding the "Siberian plant" (which is not further described), only to discover that it does not cure leprosy, although it alleviates in a large degree the sufferings of the victims.

**SPURIOUS MINERAL WATERS IN BRAZIL.**—The *Rio News*, in commenting recently upon the conviction of a London mineral-water manufacturer for filling the stamped bottles of another firm with his own goods, asserts that in Rio the local manufacturers not only collect the original boxes and bottles, but use the same brands and labels and sell their own spurious products for the genuine. "It is a well-known fact," says our contemporary, "that an enormous quantity of Apollinaris water is now manufactured and sold in this city, and many, if not all, hotel and restaurant keepers buy it for their customers. It is an abuse which the authorities ought to suppress with all the rigour of the law, as it is perilous to health to have these falsified mineral waters sold." The *Rio News* explains that by Apollinaris water it means, of course, imitations of the real Apollinaris.

**A DRACONIC FOOD AND DRUGS ACT.**—The New York State Legislature has passed a drastic Bill (so drastic that it would probably prove inoperative from over-severity) aimed against the adulteration of alimentary substances. The Bill, before becoming law, must pass the Senate, where it appears likely to be thrown out. It is a short measure of three paragraphs, and provides that from the date of its passing into law no package or other receptacle containing materials intended for alimentary or medicinal purposes shall be offered for sale or sold in the State, either in bulk or otherwise, intended for wholesale or retail purposes, unless it have attached, plainly exposed to public view, a printed formula or statement of the component parts or ingredients of the materials it contains. Possession or offer for sale of alimentary or medicinal substances without such printed formula shall constitute a misdemeanour, punishable by a fine of one thousand dollars, or less, or imprisonment in a penitentiary for one year or less.

**CANADIAN NOTES.**—*Convention*: It is proposed to hold a convention of the trade at Toronto in August. Such subjects as a uniform price-list, the sale of liquors and of poisons, and "cutting" will be discussed.—*More Affiliation*: At a recent meeting of the Manitoba Pharmaceutical Association details were submitted of a scheme of affiliation with the Medical College of the Manitoba University. In this it is proposed that the University should have a faculty of pharmacy, under which the pharmaceutical subjects should be taught by regularly appointed professors of the University. The degree of Ph.G. would be granted to those who passed an entrance examination, and two other examinations—Minor and Major. Attendance at the University classes, or other recognised courses of instruction, would be compulsory. The Association have not yet adopted the scheme. If they do their own pharmacy school will be closed.

**AN INDIAN PARTNERSHIP DISPUTE.**—On February 16 last, in Madras, Mr. Justice Wilkinson gave judgment in a suit in which Mr. Thomas Ross, one of the partners in the firm of West & Co., chemists and druggists, Madras, as plaintiff, sought for a dissolution of partnership with Mrs. Maria Bowie and James Tallent, the remaining partners of the firm, on the ground that he (the plaintiff) was a creditor of the firm to the extent of 8,000rs. prior to his becoming a partner years ago, and that at present he had to conduct the business disadvantageously to himself, and with no prospect whatever of his debt being paid. On behalf of the defendants, it was argued that Mrs. Bowie, who held the majority of shares in the firm, was arranging, if possible, to buy the plaintiff out, and therefore asked for a month's adjournment, especially as it would in no way prejudice the plaintiff, who was in actual possession of the shop and of the cash-chest, and received all moneys due to the shop, while if the business was put to the hammer of the auctioneer the stock-in-trade would fetch little or nothing. His Lordship granted a month's adjournment accordingly.

**QUASSIA-WOOD IN THE WEST INDIES.**—"Nowhere in the West Indies," says a writer in the *Oil, Paint, and Drug Reporter*, "did I see so much quassia-wood prepared for and awaiting shipment as at St. Ann's Bay, Jamaica, where my host, Mr. A. D. Jacobs, had cords of it, all prepared, cut into lengths and piled up, in readiness for the next lugger or steamer that would appear in the little coral-reef bound harbour. The preparation of quassia presents no particularly interesting features. It is simply cut, the smaller



branches trimmed off and thrown away, the larger branches, the trunks, and larger roots being cut into convenient lengths. The quassia-tree rarely exceeds 10 or 15 feet in height. It has beautiful bright red flowers and large pinnate leaves. The flowers are valued on the island for their stomachic properties. The medicinal use of the wood was learned by the white men from the natives. The negroes call it quassa, or quasha; and they employ it with great success as a remedy for fevers. The supply of quassia is practically unlimited in all the Caribbean islands south of Cuba. It is from the latter that the quassia-chips of commerce and the quassia cup and bowls, so familiar to all, are made."

**BERLIN PHARMACEUTICAL SOCIETY.**—At the last meeting of this Society, Professor A. Pinner communicated a paper in continuation of the researches made by him and Dr. Wolfenstein on the derivatives of nicotine. By heating oxynicotine with ten times its weight of concentrated hydrochloric acid for six or eight hours, at a temperature of 140° C., a dark-coloured solution is obtained, which on treating with excess of sodium hydroxide and distilling yields a brownish resinous distillate. This combines with hydrochloric acid, forming white plates,  $C_{10}H_{11}N_2O \cdot 2HCl$ , easily soluble in water, moderately in alcohol, and melting at 192° C. The free base was studied, and was found to be not unlike nicotine itself in respect to colour and oily appearance. Professor Pinner proposes to call it pseudonicotine oxide. It is about twenty times weaker than nicotine, but, strange to say, when dehydrated, a body,  $C_{10}H_{12}N_2$ , dehydronicotine, is obtained, which has the same physiological action as nicotine, and is as powerful as that base. The author also reported that he had succeeded in reconstituting nicotine from oxynicotine by heating with barium hydrate solution for six hours at 140° C., and he spoke at considerable length on the constitution of this group of bases. Following this was a paper by Professor W. Preyer, on the genetic system of the elements, and one by Dr. H. Thoms, the president, on a few of the esters of *p*-nitrobenzoic acid and *p*-amidobenzoic acid. This dealt with those interesting phenol compounds which have given rise to benzocaine and similar therapeutic agents, the synthesis, constitution, and characters of which were fully explained by the author.

**PHARMACISTS AND DISPENSING DOCTORS IN BELGIUM.**—In Belgium medical men in towns are not allowed to dispense, but in country places where no pharmacists are located they are allowed to take out a licence enabling them to dispense their own medicines. Their dispensaries are, however, subject to periodical inspection by a commission mainly composed of medical practitioners. The Belgian pharmacists have long protested against these dispensing facilities given to medical men, and they have never ceased to protest against the "cumul," as it is called. The last report of the commission of inspection is a splendid weapon in the chemists' hands, as they have not been slow to perceive. It reveals a very unsatisfactory condition of things in the medical dispensaries, and the Antwerp *Journal de Pharmacie* bases upon it an urgent demand for the abolition of the dispensing licences. The commissioners report that in the province of Antwerp they frequently found it necessary to admonish dispensing doctors upon the unsatisfactory state of their scales, and to recommend them greater care in the keeping of their medicaments. Many dispensing doctors in this province, we are told, were found to stock citrate of magnesia of English manufacture, notwithstanding that they had previously been informed by the commissioners that this product contains no magnesia, but is a mixture of citric and tartaric acids and soda—a compound which is very well-known in England as a popular saline. The rapidity with which this citrate of magnesia dissolves in water, however, seems to be its attraction for the medical men. In Brabant the inspection of the dispensaries kept by medical practitioners created an unfavourable impression. A very large number of these practitioners err on the side of gross negligence, want of cleanliness, the keeping of drugs too old to be active, and on many other points. Sometimes the key of the poison-cupboard is wanting altogether, sometimes it is found sticking in the lock—the member wanting on those occasions being the dispensing doctor himself. It does occur, but very rarely, the commissioners add in a spirit of gentle sarcasm, that both key

and doctor are wanting, the former reposing in the pocket of the latter. These peccant physicians have received from the authorities a final warning—*un dernier avertissement*—calling attention to their lacuna, and threatening them with the strong arm of the law. In West Flanders the conditions are better—there the only complaint is of the general dinginess of the dispensaries. Disorder and dirt are also the dominant characteristics of medical dispensaries in East Flanders. In that happy province there is a large number of dispensing doctors who possess no Pharmacopœia. The small scales used by them for dispensing are often very defective, and the most active poisons—such as sulphate of strychnine—instead of being kept in a poison-cupboard, are lying about in paper bags on the counter. Many drugs were found either illegibly or wrongly labelled. In the Hainault sixty doctors' dispensaries were visited, of which fourteen were reported in a "bad" and eight in a "mediocre" condition. In the province of Liège there are but few dispensing doctors, and there, as in Limburg, Luxembourg and Namur, the inspection called for no particular comment, although the owners of a good many of the dispensaries visited were cautioned upon the unsatisfactory condition of their establishments.

## Personalities.

**MR. HENRY PEAK**, pharmaceutical chemist, has been elected a member of the Kent County Council for Castle Ward, Dover.

**MR. A. J. BROWN**, chemist and druggist, 55 Trafalgar Road, Greenwich, has been defeated in his candidature as a Poor-law guardian.

**MR. W. W. LOCKYER**, chemist and druggist, 208 High Street, Dartford, has been re-elected to the Board of Guardians for St. Nicholas Ward.

**MR. GEORGE EADE**, pharmaceutical chemist, of Goswell Road, has been returned at the head of the poll for Ward 5, or St. Luke's, for the Holborn Board of Guardians.

**MR. A. E. HORRELL**, chemist and druggist, of the firm of Horrell & Goff, 34 and 36 High Street, Dartford, has been re-elected a member of the Dartford Local Board of Health.

**MR. JOHN KEITH**, of Newton Stewart, is not opening a business at Blyth, Northumberland, but has bought the business of Mr. Kendall, chemist and dentist, there, and will take it over in a few days.

**MR. RITCHIE**, President of the Local Government Board, has appointed Dr. R. Thorne Thorne, F.R.S., to be principal medical officer of the Board, in succession to Sir George Buchanan, F.R.S., resigned.

A TWELVE-YEAR-OLD son of Mr. F. Barry, chemist, Woolwich, has passed the Cambridge local examinations at Greenwich for boys under 16, obtaining honours in three subjects. He was first in French, second in religious instruction (including Greek Testament), and ninth in English, among the 7,724 boys from all parts of the country.

ACCORDING to the *Staffordshire Evening Post*, there is a rare chance for an apprentice at Hanley, where "Mr. J. H. Heap, M.P.S., A.S.A., pharmaceutical chemist and analyst, fellow of Westminster College of Chemistry, honours in chemistry and materia medica, holder of certificate of St. John Ambulance Society, late dispenser to Her Majesty's Postmaster-General, successor to W. Searlett, 4 Brunswick Street, Hanley," advertises such a vacancy.

**MR. GATES**, overseer for Lee parish, asks us to remove an incorrect impression conveyed by a paragraph printed last week, which stated that Mr. Alfred Cooper Cole, chemist, of Lee, had been nominated as officer but was not selected by the justices. Mr. Cole's name was certainly submitted, but merely as a matter of form, for he had distinctly refused to serve, as he filled the office a few years ago. The magistrates, however, require that four names shall be submitted to them, and they invariably select the first two. Mr. Gates says Mr. Cole can, if he will, be overseer any year, as he would be unanimously nominated and appointed.



## Pharmaceutical Society of Great Britain.

## EVENING MEETING.

A S briefly reported last week, the members of the Society were invited to a pharmaceutical evening at Bloomsbury Square on Wednesday, April 13. The attractions were unusually bright—a whole year's collection of museum donations exhibited in the old way, and with microscopic illustrations under the lens, and enlarged by lime-light lantern. It was a bravo show truly; still, it might have been an ordinary monthly meeting so far as mere number of specimens was concerned. The audience was a fair one, with a good sprinkling of Mincing Lane people on the front benches, but the representatives of historic wholesale houses were conspicuous by their absence.

Mr. CARTEIGHE, in opening the proceedings, suggested that the best way to arrange the menu of the evening would be, first to let Mr. Holmes read a portion of his paper relating to the donations received by the museum during the year, and then to ask Dr. Paul to interpose with his notes on solution of strychnine, after which Mr. Holmes would be invited to resume his paper.

## A NEW SENNA.

Mr. HOLMES, who received a very friendly reception, pleasantly remarked on rising that the difficulty he had was to know where to begin. So many specimens had been presented during the year that, were he to attempt to say even a few words about the whole of them, he would have to keep his audience far beyond the limits of the evening. The more important specimens, said Mr. Holmes, were on the table before him; others had been placed on view in the museum upstairs. The first specimen to which attention was drawn was one of *Aden senna*, showing a small and rather hairy variety of the leaf. A bale of this senna had been offered at the London drug sales lately, among a parcel of leaves of the usual commercial variety. This variety had not been seen in commerce in this country for many years, but it had been described long ago by Vatka. The bale which was offered on March 3 was looked upon with suspicion in the trade, and, though offered "without reserve," was not competed for, although it had subsequently been privately disposed of. The plant from which this senna was derived is a common one all through the East, from Nubia to Scind, and the action of the leaf is quite as powerful as that of the better-known kind. The botanical name of this *Aden senna* is *Cassia holosericea*. It is a shrub attaining a height of about 1½ foot, with pinnate leaves, smaller than those of *C. obovata*, and densely covered with long hairs. Representations of the various kinds of leaves of *Aden senna* known to commerce were then shown upon the screen, the first being the *corpus delicti* of the auctions. The pods of this variety almost exactly resemble the Alexandrian sennapods in shape, but they are quite hairy. The next kind was that of *Cassia obovata*, with larger leaves and a more distinct ridge on the pods than the preceding specimen. Then followed the ordinary Alexandrian senna-leaf of commerce, which is neither oblong like No. 1, nor ovate like No. 2.

## COCA-LEAVES.

From senna the Curator proceeded to coca, the botany of which, he said, is still far from being satisfactorily known. In commerce there are two kinds of leaves, the dark green, strong Bolivian, or Huanoco, and the light green, Peruvian, or Truxillo leaf. A third variety of leaf is that cultivated in the island of Java, which is occasionally met with in the markets of the world, and has the reputation of being a very carefully dried article. About four years ago Mr. Morris, of Kew, in an exhaustive paper on coca, described a variety which he called "Novogranatense," which has narrower leaves and is of a paler green colour than the Bolivian leaf, and this is the variety which appears to yield the Java leaf of commerce. With regard to the respective alkaloidal values of the various leaves, Peruvian and Bolivian leaves yielded cocaine and isotropyl-cocaine in almost equal parts, whereas the Java leaves gave less cocaine than the two former. In this country, said Mr. Holmes, cocaine was generally prepared by purifying the crude

cocaine manufactured in Peru, and the Java leaves were therefore all used by the German cocaine-makers. So far as cocaine-manufacture is concerned the leaves of the *Erythroxylon Bolivianum* are preferred, and of this variety the pale brown leaves are the best. The leaves of young plants contain more than double the quantity of alkaloid found in the leaves from old shrubs, and moisture caused a considerable loss in the yield of alkaloid. Reproductions of various kinds of coca-leaves were then thrown on the screen. The variety described by Mr. Morris has a short stigma. The cultivated Java leaves are not so long as Mr. Morris's "Novogranatense" leaf. They are broader in the middle, the flowers have longer stigmata, and the habit is different from that of the others. The brown Bolivian leaf, finally, has a more leathery appearance and the midrib shows a distinct ridge.

Having given these notes on coca, Mr. Holmes came to the staple subject of his discourse—viz, certain new varieties of

## CINCHONA.

The specimens to which he referred were shown upon the table before him. There were nine varieties of bark, of which the donor was a Mr. R. Thomson, formerly a superintendent of the Jamaica Botanical Gardens, and now engaged as a planter in the Republic of Colombia. Mr. Thomson had discovered some of these barks in the central range of the Colombian Andes while travelling in that region a few years ago; others were cultivated by him upon his plantation. Analyses of the barks showed them to be of remarkable average richness, the following being the figures given:—

	Quinine Sulphate	Quinine	Cinchonidine	Cinchonine	Quinidine	Amorphous
Thomsoniana ..	5.94	4.45	0.27	0.22	0.25	0.74
Ledger Verde ..	4.30	3.68	0.00	0.01	0.20	0.44
Negra ..	7.30	5.28	0.00	0.10	trace	0.74
Morada ..	3.06	2.30	0.00	0.04	0.59	0.38
Tuna ..	9.04	6.8	0.4	0.38	0.18	0.42
Pombiana ..	5.8	4.11	0.34	0.02	trace	0.26
Officinalis ..	6.32	4.74	1.23	0.10	0.07	0.42
Succirubra ..	5.95	4.45	2.77	0.12	0.02	0.35
Hybrid ..	3.32	2.49	1.92	0.04	trace	0.52

The three last-named kinds are well-known varieties, and not natives of Colombia, any more than the Ledgeriana Verde and Morada. The tree yielding the bark marked "Negra" was discovered by Mr. Thomson in 1883. It grows at an altitude of 8,000 feet, attains maturity with singular rapidity, resembling, in this respect, the Succirubra variety, and is exceedingly rare. Both flowers and leaves are very large; the latter have a rich brown colour and hairy under-surface. They are without the scaberrimies, or little warts, the existence of which has been held to indicate alkaloidal richness. Whether, as a matter of fact, rich barks are always collateral with scaberrimies leaves may be doubted. The microscopical structure of the *Negra* bark indicates a relationship to that of the *Lancifolia*. Mr. Thomson sinned a few hundreds of plants of this species, and is now rearing it in his plantation. The tree grows slowly and does not appear to prosper so well under cultivation as in the wild state. It received from Mr. Thomson the name of "Negra" (black), because of its deep claret-coloured petioles, by which the peons are able to distinguish it from other kinds. In the Tuna bark ("tuna" is a native word of uncertain meaning), the richest of all Mr. Thomson's varieties, the resemblance to the Ledger species is very evident. Like all other kinds belonging to the *Lancifolia* group, the bark of this species contains numerous stone cells, fairly well distinguishable under the microscope; in the soft or middle layer there are no stone cells; in the other layers the cells are now arranged in solitary lines, now in clusters. The Pombiana variety was discovered in 1893 in Ecuador by a gentleman living in that country, and whose name had been given to it. Several thousand plants had been raised by Mr. Thomson from seeds and cuttings, but the tree is one of very slow growth. The Pombiana does not in histological structure resemble any of the cinchonas, but is like the myrtaceous plants. Its leaves are small and glossy, and its foliage is very dense. The capsules also are small (a fact which, in cinchonas, is



held to presage richness in quinine). The wood-fibres form distinct oblong groups like those of the *C. lancifolia*, the leaves are leathery and narrower than those of the *C. pitayensis*, the flowers are hairy on the under-surface of the corolla, the petals are hairy all over, whereas in nearly all true cinchonas the petals are only fringed with hair. In *C. pitayensis* there are no stone-cells in the middle layers of the bark. The *Pombiana* may be said to form a link between the Pitayo and the *Lancifolia*, or "soft Colombian," species.

#### BAHIA PAREIRA BRAVA.

Mr. W. Morton Holmes then came forward to explain screen-exhibited sections of *Pareira brava* and the spurious kind from Bahia. He said that the differences which distinguish the true root from the false are:—(1) The vessels in the woody bundles of the spurious are about twice the diameter of those in true pareira. (2) The sclerenchymatous tissue outside each zone is more conspicuous. (3) The bases of the woody wedges are concave. In true pareira they are nearly straight. (4) The mass of parenchyma at the base of the wedges is in consequence nearly circular. (5) The spurious pareira contains only a few scattered grains of starch. (6) The medullary rays are narrow in the spurious variety, and the cells are elongated in a radial direction. In true pareira they are broad, and the central cells elongated transversely. They are also loaded with starch-granules. (7) The zones of the spurious are more regular in size, and the number of the woody wedges is greater. The point from which the wedges radiate is very eccentric.

The President next called upon Dr. B. H. Paul to make a communication regarding

#### LIQUOR STRYCHNINÆ.

about which there has been a little excitement lately, and many people have tripped up in trying to explain why the liquor sometimes crystallises. Dr. Paul had about a dozen 1-oz. phials of samples, and he said that the subject had been very well worked out by Mr. Duncan, of Edinburgh, with whom he agreed that there is no deposit in the liquor made strictly according to the British Pharmacopœia. The deposit of crystals is due to excess of acid and freezing. A neutral solution at a low temperature becomes absolutely solid. Dr. Paul also joined in Mr. Duncan's recommendation that 10 minims of dilute hydrochloric acid to 9 grains of strychnine is better than 14 minims.

#### EUCALYPTUS OIL.

The Curator, resuming his paper, came next to essential oils, and eucalyptus oils were the first he spoke of. He referred to the introduction of *Eucalyptus Globulus* oil, and the great differences which were noted in the qualities of commercial oils as soon as eucalyptus began to be popular. Within the last two years a new kind of oil had appeared in the market under the name of *E. oleosa*, which had a cuminalike odour, very different from that formerly known as *oleosa* oil. The fact was that the oil which formerly went by that name was the Mallee scrub oil, a mixture distilled from four species which grew together, and the new *oleosa* is a distinct variety. He expressed the opinion that although the original reputation of eucalyptus oil was based on the *Globulus* variety, it had, in reality, happened that for years the *amygdalina* oil was the only one which came on the market, and even yet this oil is preferred for inhaling in lung-diseases. He did not appear to be quite sure what the therapeutic properties of eucalyptus oil are due to, at one time suggesting that the peculiar odour of the *amygdalina* oil is probably due to an aldehyde, which may have something to do with its therapeutic properties, and again recommending a comparative trial of phellandrene and eucalyptol. From this subject Mr. Holmes went on to speak about

#### ESSENCE OF LEMON.

his remarks arising from a "new form" of the essence recently presented to him. This turned out to be an attempt to prepare turpeneless oils, such as Haensel\* has put on the

market for many years. Mr. Holmes said (apparently on the authority of the donor of his specimen) that the turpeneless oil of lemon is worth 107. a pound. He got one of the Bell scholars to examine the oil and compare it with a specimen from Trinidad, the following being the results:—

	Distilled	Eucilled	Pharmacographia
Sp. gr. .. ..	8513	876	83.83
Sp. rot. .. ..	+ 65.8°	+ 47.2°	+ 49.1 + 32.5
B. P. .. ..	179°	172° 176°	170° 180°
Sol. in S.V.R. 838	1 in 5.3	1 in 18	Not given

Mr. Holmes added that the distilled specimen did not appear to keep so well as the eucilled one.

#### THE SOURCE OF JABORANDI.

When jaborandi-leaves first came into the market, Mr. Holmes made a very complete botanical investigation of the source, &c., from which they are obtained. The plant from which he then considered commercial jaborandi to be derived was *Pilocarpus Selloanus*, as the leaves had more resemblance to that species than to *P. pennatifolius*. Still, there remained the fact that the Pernambuco leaves, which are most esteemed and which have not been in the market for a long time, are distinct from those of the two species mentioned. Recently Mr. Holmes has had an opportunity of conclusively verifying the source of the favourite leaves—a jaborandi plant which was brought from Pernambuco, and is grown in Cambridge, having flowered. The leaflets of this plant are much smaller than *Selloanus* leaflets; the upper portions of the plant are of a purplish colour, and the inflorescence is a spike of red flowers, whereas the flowers of hitherto recognised species are purple. For the Cambridge plant Mr. Holmes suggests the name of *Pilocarpus Jaborandi*.

#### DISCUSSION.

Mr. MARTINDALE, in opening the discussion, said that the leaves of *Pilocarpus pennatifolius* were not identical with those which were considered most active. The latter had a roughish surface and were distinct from the leaves from Kew *P. pennatifolius* plants. He had seen the latter tried, and they failed in drachm doses to produce the powerful effects which even smaller doses of the Pernambuco leaves produced. It might be that through cultivation the pilocarpine was not elaborated, so to speak; still, he had always had the feeling that they had not got the source of the true jaborandi, and he was pleased by what Mr. Holmes had communicated that night. Speaking of the cocaine he said that although the Bolivian leaf was most liked for cocaine-making, the Truxillo and similar varieties were preferred for galenic preparations, as they did not contain the large percentage of wax which is in the Bolivian leaves, and makes the surface of those leaves quite shiny. As to the liquor strychninæ question he accepted the Edinburgh statements, but did not quite agree with the writers there as to the use of the pure alkaloid instead of a salt. He preferred the acid sulphate because it was so readily soluble, and no acid was needed with it. He corroborated Mr. Coull's observations as to the solubility of this salt, which he thought better than the nitrate.

Mr. JOHN MOSS said that preparations of Aden senna were sweet, not acrid, mild in action, and acceptable. He had given it to his workpeople, and they all reported most satisfactorily regarding its aperient power. In regard to pareira-root, he pointed out that fourteen years ago he had called attention to the admixture of stem with root; and as to the Bahia kind, it was so totally different from true pareira that it could not be mistaken. It was much lighter in weight, the general structure was very different, being more uniform and even, and this could be seen by the naked eye.

Mr. THOMAS CHRISTY called attention to some plants which he had put upon the table, which included *Pulsatilla nigricans*, and, speaking of coca, said that he had so many kinds in his conservatories that he felt they had not learnt all that was to be known regarding the leaves of greatest value. To this he added a comment that English manufacturers do not know so much about the extraction of cocaine as is known in Germany.

Mr. PHILLIPS (of Jenkin & Phillips) was asked by the President to speak, but merely expressed his pleasure in listening to the discussion.

\* In justice to this maker it is right to point out that the characters given by Mr. Holmes are quite unlike those of Haensel's turpeneless oil of lemon. For example, the latter has a specific gravity of at least 0.900, and Dieterich shows that turpeneless oils of lemon by this and other makers are almost optically inactive. The museum-distilled specimen is, therefore, misleading, and valueless for comparative purposes.—ED. C. & D.



Mr. R. H. DAVIES said, in regard to the oil of *Eucalyptus oleosa*, that he had now been able to confirm Schimmel's statement that eucalyptol can be separated from it by freezing, without previous distillation. He thought there should be no difficulty in getting the question of the medicinal values of the oils settled by submitting samples of phillandrene and eucalyptol to medical men for experiment.

Mr. DRYSDALE, in response to an invitation from the chair, said that there was one point about eucalyptus oil which he might call attention to. The oil from *E. oleosa* and that from *E. cneorifolia* were regarded as from two distinct species, whereas they were, in fact, one and the same product. Formerly Baron von Mueller regarded the latter as a sub-variety of *E. oleosa*, but later observations showed that *E. cneorifolia* was a distinct species. The firm of distillers which he represented had adopted the more common name *oleosa* because of the facility in pronouncing it, but the tree was not widely propagated in Australia.

Dr. F. W. PASSMORE said he had lately been working on samples of *E. cneorifolia* oil, and found that one specimen contained 50 per cent. of eucalyptol. Another sample also contained some. He had observed that the higher boiling fractions had an odour like lemon, this probably being due to the presence of some such body as citral.

Professor ATTFIELD, referring to the liquor strychninae question, said that Mr. MacPherson had in a very good paper some years ago called attention to the varying amounts of acid in the alternative formulæ, and at his (the speaker's) suggestion had revised the whole of the formulæ and submitted improvements which would no doubt be incorporated in the next Pharmacopœia. It was satisfactory to him to know that when the liquor was prepared as the B.P. directed it was quite satisfactory. Mr. Holmes had so bombarded him with facts that he was not prepared to speak in other than a complimentary manner of his communication. He looked forward to the time when the British Pharmacopœia would be the best in the world, and that would be largely due to the assistance which was rendered by the Pharmaceutical Society.

Mr. T. S. DYMOND questioned the utility of removing the terpene from oil of lemon. The result seemed to be that it did not keep so well, and they ought to know what it was that has been removed. The specimen which Mr. Holmes had submitted was apparently not entirely free from terpene.

The PRESIDENT then wound up the proceedings with a vote of thanks to Mr. Holmes.

#### TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1890, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

(From the "*Trade Marks Journal*," April 13, 1892.)

"CREOLIN"; for chemical substances used in manufactures, &c., and anti-corrosives, also perfumery and toilet articles. By Jeyes' Sanitary Componds Company (Limited), 43 Cannon Street, London. 161,924, 161,927.

"CANARY," and sketch of canary on tree-twig; for medicines for birds, &c. By W. Welham, trading as W. Welham & Co., Gordon Grove, Camberwell. The essential particular is the device, the exclusive use of added matter being disclaimed. 160,273.

"COMAX"; for disinfecting and antiseptic powders and fluids. By the Cambridge Chemical Company, 1 Sidney Street, Cambridge. 162,911.

"T. Y.," and sketches of castle on diamond-shaped label; for medicated lozenges. By J. Terry & Sons, Clemen-thorpe, York. The essential particular is the combination of devices, the exclusive use of the letters being disclaimed. 162,476.

"H. STEINMETZ," as signature; for mineral and aerated waters. By H. Steinmetz, trading as The Hull and District Mineral Water Company, 19 East Parade Holderness Road, Hull. 163,420.

Picture of Eastern girl; for perfumery and toilet articles. By J. S. Collins, The Grand Hotel, Trafalgar Square, London. 163,329.

"PIONEER," and signature of firm; for polishing preparations and materials. By Joseph Pickering & Sons Albyn Works, Sheffield. 163,048.

(From the "*Trade Marks Journal*," April 20, 1892.)

"THE ALL-ROUND DIP, NON-POISONOUS," on circular label, showing sketches of animals; for deodorisers, vermin-destroyers, sheep-dip, &c. By H. Ellison, Flatt Lane, Cleckheaton. The essential particular is the combination of devices, the exclusive use of added matter being disclaimed. 161,981.

"KAMONIN"; for medicines for horses, cattle, &c. By J. Cook & Sons, 70 St. Luke's Road, Southport. 163,359.

"GELEURINE"; for an embrocation for human use. By F. M. Ives, 6 Bark Place, Bayswater, W. 162,678.

"SPRAGGON"; for medicine for human use. By D. H. Oxen, 40 Bridge Street, Newcastle, Staffs. 162,792.

"GURDA"; for medicine for human use. By A. J. Barnes, Aldgate, Gloucester. 163,355.

"VINO CARNIS" on label, showing a barred gate, and other wording; for a meat wine. By J. G. Redgate, Traffic Street, Nottingham. The essential particular is the device, the exclusive use of added matter, except name and address, being disclaimed. 160,182.

"A 1 BRAND NON-ALCOHOLIC," and crescent-shaped design; for mineral and aerated waters. By Batey & Co., 216 Kingsland Road, London. The essential particular is the device, the exclusive use of added matter being disclaimed. 161,829.

#### MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BAXTER—WALLACE.—On April 6, by special licence, at Beresford Villas, Coleraine, by the father of the bride, assisted by the Rev. R. B. Wylie, LL.D., and the Rev. N. J. Baxter, cousin of the bridegroom, W. J. Baxter, M.P.S.I. (and a member of the Council of the Pharmaceutical Society of Ireland), to Mary, second daughter of the Rev. Robert Wallace, Coleraine.

M'KEE—FUGE.—On April 20, at St. Giles' Church, Newcastle-under-Lyme, by the Rev. R. R. Consens, rector, Samnel Chambers M'Kee, chemist, Tunstall (son of Mr. John M'Kee, Alsager, Cheshire), to Jessie Georgina, only daughter of Mr. Edward Fuge, of Newcastle.

WELLINGS—JONES.—On Thursday, April 14, Mr. William Wellings, office manager for Messrs. Evans, Sons & Co., Liverpool, to Miss Mary A. Jones, of Fairfield.

#### DEATHS.

FARNWORTH.—On March 31, W. Farnworth, of King William Street, Blackburn, pharmaceutical chemist. The deceased gentleman started business in Northgate in 1841. He built premises in King William Street in 1854, and traded there until, in 1890, he retired, and left his son to continue the business under the name of Farnworth & Son.

GILBERT.—On March 30, Samuel Gilbert, chemist and druggist, Sandbach. Aged 73.

HADEN.—On March 28, Walter Edward Haden, pharmaceutical chemist, London. Aged 33.

RADFORD.—Isaiah C. Radford, for many years sanitary inspector of Montreal, Canada. Mr. Radford was a native of Devonport, and at one time carried on business in Fore Street as a chemist and grocer. Aged 78.



## BANKRUPTCY REPORTS.

*Re* WEST & BRAY, 237 Blackfriars Road, S.E., Chemists' and Grocers' Sundrymen.

THE first meeting of the creditors under this failure was held at the London Bankruptcy Court on Wednesday afternoon before Mr. A. H. Wildy, Official Receiver. The debtors entered into partnership in October, 1891, with a borrowed capital of 300*l.*, and, being in difficulties last month, they called their creditors together and explained the position of affairs. A composition offer of 4*s.* or 5*s.* was rejected, and they therefore filed their petition. The accounts show total liabilities 781*l.* 13*s.* 9*d.*, of which 771*l.* 14*s.* 3*d.* are expected to rank against assets valued at 185*l.* 15*s.* 9*d.*, after providing for the preferential claims. Prior to October, 1891, the debtor West was for some years employed Bouillon Fleet (Limited). The profit on the trading, roughly estimated for the whole period at 35*l.*, has been more than absorbed by the expenses of advertising. In commenting upon the case, the Chairman said that, having regard to the very limited period of the trading, the debtors had created a large deficiency. There was no offer, and as the case was one for summary administration, the estate would remain in his hands to be wound up in the ordinary course of bankruptcy. The public examination of the debtors is appointed for May 3. The following are the principal creditors:—

	£	s.	d.
Bouillon Fleet (Limited), Warner Road, Camberwell .. .. .	43	4	9
Bray, W., 49 Studley Road, Clapham .. .. .	235	0	0
Burnett, M., 17 Southampton Street, W.C. ....	133	6	8
Butler & Crisp, Charterhouse Buildings, Goswell Road .. .. .	35	1	8
Butler & Tanner, Frome, Somerset .. .. .	20	0	0
Frederick, J., & Co., Shacklewell Lane, Dalston ..	10	0	0
Lynn & Son, 10 Camberwell Street, S.E. ....	17	5	6
Printing Company, Newgate Street, E.C. ....	61	5	0
Rundell, J. M., 5 Somerleyton Road, Brixton ..	15	0	0
Sell, H., Fleet Street, E.C. ....	125	3	1

*Re* THOMAS BROWN, Hull, Chemist's Assistant.

THIS bankrupt was publicly examined at the Hull Bankruptcy Court on April 11. In answer to the Official Receiver he said he commenced business about ten years ago with a capital of 500*l.*, given to him by his father. In January, 1890, he made an assignment for the benefit of his creditors. His liabilities were then about 4,000*l.*, and the trustee paid a composition of about 2*s.* 6*d.* in the pound. Some creditors, representing about 50*l.*, refused that. He had since been the nominal manager of a shop in Waterloo Street, for his sister, and he attributed his insolvency to being held liable for goods purchased by him for her, and to pressure from old creditors. Examination closed.

*Re* JONATHAN STEPHENS, Devonport, Chemist and Druggist.

THE summary of the debtor's statement of affairs shows gross liabilities amounting to 3,169*l.* 4*s.* 3*d.*, of which 2,447*l.* 12*s.* 9*d.* is expected to rank, the assets consisting of cash in hand, 2*l.* 12*s.* 3*d.*; machinery, 400*l.*; furniture, 15*l.* 0*s.* 9*d.*; book debts, 103*l.* 9*s.* 4½*d.* = 526*l.* 1*s.* 7½*d.*; preferential claims, 42*l.* 6*s.* 6*d.*. The cause of failure is alleged by debtor to be through onlay on business premises, losses in respect of his branch establishment at Albert Road, Morice Town, pressure by creditors, and want of capital. The debtor states that he commenced business in July, 1882, at Devonport without any capital, and from 1885 to 1888 he had also his branch establishment. A considerable portion of the liabilities appears to have been incurred during the years 1891 and 1892. The Devon and Cornwall Bank, Stonehouse, Devon, and Mr. A. E. Akaster, of St. Aubyn Street, Devonport, are entered as creditors for 595*l.* for money lent, but they are said to hold securities to the extent of their claims. Mr. G. W. Jennings, of Stoke, is also entered as a creditor for 1,031*l.* 9*s.* 6*d.* for money lent, and he is said to hold securities estimated to produce 12*l.* 15*s.* The debtor's books and account consist of a day book, ledger, and cash book. The debtor says that on

March 30, 1891, his liabilities exceeded his then assets by 1,069*l.* 9*s.* 8*d.*, and the deficiency is further accounted for by bad debts, household expenses, interest on loans, payments to the Provident Association of London, travelling expenses, law costs, insurance premiums, advertising and men, removal of furniture from Saltash, and depreciation of stock and fittings. The debtor's net profit since March 30, 1891, is set down at 400*l.* The Official Receiver considers that the assets are considerably over-estimated. The receiving order was made on the debtor's own petition. The following are the creditors:—

	£	s.	d.
Adams, E., Devonport .. .. .	10	5	11
Beatson & Co., Rotherham .. .. .	10	4	6
Billing & Co., Plymouth .. .. .	10	0	0
Brighton, G., Devonport .. .. .	18	8	10
Browning, J. & H., London .. .. .	10	17	9
Coates & Co., Plymouth .. .. .	10	18	6
Corbridge, W., Sheffield .. .. .	10	17	3
Croft, C., Plymouth .. .. .	10	0	0
Devon and Cornwall Bank, Stonehouse .. .. .	31	5	10
Devonport Gas Company, Keyham .. .. .	10	7	3
Durant, J., Bedminster .. .. .	10	13	10
Edwards & Son, London .. .. .	140	0	0
Evans, Lescher & Webb, London .. .. .	18	7	7
Fuge, H., Horrabridge .. .. .	10	15	0
Graves & Son, Devonport .. .. .	30	0	0
Greaves, G., London .. .. .	12	12	0
Greaves-Smith, Devonport .. .. .	49	0	0
Helfman, Captain, Stokes .. .. .	31	10	0
Jackson, E. C., Crediton .. .. .	10	12	1
James, G., Ford .. .. .	10	6	3
Kent, G. B., & Sons, London .. .. .	10	4	6
Lyne, J., Stoke .. .. .	44	0	0
Maw, Son & Thompson, London .. .. .	94	11	10
Newbery & Sons, London .. .. .	38	16	1
Piekford & Co., Plymouth and London .. .. .	10	3	2
Piesse, London .. .. .	10	9	0
Robinson & Co., Bristol .. .. .	19	4	0
Rolston, G. T., Devonport .. .. .	35	2	10
Rolston, G. T., Devonport .. .. .	64	0	0
Rolston, J. R., Devonport .. .. .	10	0	0
Sansom, A. M., Stoke .. .. .	120	0	0
Sharp Bros., London .. .. .	17	3	2
Shirley Bros., London .. .. .	10	8	10
Spiller, J., Plymouth .. .. .	14	0	0
Stephens, J. H., Plymouth .. .. .	10	5	0
Swiss, A. H., Devonport .. .. .	57	1	6
Sutton, F., Derby .. .. .	20	0	0
Thomas, C. B., Devonport .. .. .	10	0	0
Thompson, Walters, Hole & Co., London .. .. .	52	17	4
Tidman and Son, London .. .. .	10	8	11
Tonkin, W., Devonport .. .. .	11	4	4
Townend, J. F., Bristol .. .. .	119	0	0
Townsend, J., Exeter .. .. .	10	12	6
Troake, W., & Co., London .. .. .	56	9	8
Warwick Bros., London .. .. .	10	1	8
Western Morning News Company (Limited), Plymouth .. .. .	23	9	3

## Fully Secured.

Akaster, A. E., Devonport .. .. .	175	0	0
Devon and Cornwall Bank, Stonehouse .. .. .	420	0	0

## Partly Secured.

Jennings, G. W., Stoke .. .. .	1,031	9	6
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## Liabilities on Bills.

Goldstein, Nathan & Co., Brighton .. .. .	45	0	0
Tucker, H., Plymouth .. .. .	44	10	0

## Preferential.

Gard, E., Devonport .. .. .	15	0	0
Smith, F., Devonport .. .. .	15	0	0

*Re* GEORGE LINNELL, JUN.

THIS debtor made an application for his discharge at the Northampton Bankruptcy Court on April 14.

From the report of the Official Receiver it appeared that the receiving order was made on January 24, 1891. The debtor was formerly a chemist's assistant, but afterwards



acted, sometimes as secretary and sometimes as director to Allchin, Linnell & Co. (Limited). He put 3,000*l.* into the company. He had absolutely no assets whatever, and his gross liabilities were returned at 6,836*l.* 2*s.* 3*d.*

Finally his Honour ordered the discharge to be suspended until July 27 next.

## Trade Notes.

MESSRS. W. B. FORDHAM & SONS (LIMITED) have brought to our notice the Phoenix Alarm Cash Till which they are selling. It is an American invention and is very ingenious. When shut it can be fastened by means of five spring bolts



in any one of thirty-two different ways—that is to say, with any one of the bolts or with any combination of them. Any attempt to open the till by a person unaware of the system on which it has been closed will strike an alarm bell, the object being to prevent any but authorised persons getting at the contents of the till. It is a well-made piece of cabinet-work, and sells at 12*s.* 6*d.*

THE LIQUOR CARNIS COMPANY send us a copy of some clever verses which have been sent to them by "a correspondent from University College," the burden of which is the triumph of their Malto-Carnis. The company will probably be publishing the ballad in full; our space will only allow of an indication of the "argument." Says the writer:

Nor present days nor ages flown,  
I will be honnd, have ever known  
A classic of such high degree  
As Dr. Syntax, LL.D.

The doctor's passion lay in declining.

Declensions were his greatest joy,  
And had been ever since a boy.

He would decline everything, "id" and "quid," and even "quod."

Then Vinum Rubrum, red red wine,  
Along with hoc (k) he would decline;  
And, as an intellectual treat  
At length he e'en declined his ment.

This brought about the result which might have been expected, but Syntax declined every form of food.

In fact, he everything declined  
Till Malto-Carnis came to mind

Then said this learned LL.D.,  
This man of eccentricity,  
"Though hard I've tried it is no use,  
I can't decline this raw beef juice."

The doctor still takes delight in declensions, but Malto-Carnis, he opines, doth give him strength while he declines.

PYRETHROSIN is an active, neutral, crystalline body which Dr. H. Thoms has found in insect flowers.

## NEW COMPANIES

COLNE AND DISTRICT MINERAL WATER CO. (LIMITED).—Capital, 5,000*l.*, in 1*l.* shares. Objects: To carry on the business of makers of aerated and mineral waters and essences of every description, &c. The first subscribers (who take one share each) are:—R. Walton, Bence Street, Colne, mineral-water manufacturer; T. Sanderson, Stoneybank, Farby, mineral-water manufacturer; T. B. Dewhurst, Trawden, mineral-water manufacturer; W. Dorrill, 28 Doughty Street, Colne, book-keeper; J. Pounder, 1 Chapel Street, Trawden, insurance-agent; G. Andrews, Farby, coal-merchant; and W. H. Atkinson, Colne, surveyor. The first directors are the above-named subscribers; qualification, 20*l.* Registered office, Arcade Chambers, Colne.

DENNY & CO. (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To buy, sell, and manufacture oils, fats, grease, tallow, soaps, paints, colours, dry-alterics, chemicals, &c., and to acquire the business hitherto carried on by T. G. Denny and W. Rowling, under the style of Denny & Co., at Leeds. The first subscribers (who take one share each) are:—T. Rhodes, 30 Queen's Terrace, Otley, tallow-chandler; F. C. Hartmann, 3 Range Road, Manchester, drysalter; Alice Haley, 3 Range Road, Manchester, spinster; H. Patterson, Headingley, Leeds, flax-spinner; W. Rowling, 47 Caledonian Road, Leeds, oil-merchant; J. Richmond, 6 Shakespeare Terrace, Leeds, foreman; and T. G. Denny, Claremont, Garforth, oil-merchant. Registered without articles of association. Office, Carlton Terrace, Upper North Street, Leeds.

DISTRICT CHEMICAL CO (LIMITED).—Capital 50,000*l.*, in 1*l.* shares. Objects: To manufacture and deal in chemicals, and to acquire and use a certain licence dated February 12, 1892, granted by the Soda Improvements Co. (Limited) to H. R. Angel. The first subscribers (who take one share each) are:—G. T. Devonshire, 16 Railway Street, York Road, N.; W. Woodhouse, 25 Bristol Gardens, Maida Vale, clerk; H. E. Jerome, 13 Chesham Buildings, Duke Street, W., accountant; A. Doley, 51 Archer Street, Bayswater, W., fruiterer; G. W. H. Stephens, 12 Sandorne Road, Old Charlton, clerk; C. E. Jones, 3 Tanfield Court, Temple, barrister-at-law; and W. Baxter, 19 Byrne Road, Balham, clerk. There shall not be less than three, nor more than seven directors, and the first shall be appointed by the subscribers to the memorandum of association; qualification, 250*l.*; remuneration to be determined in general meeting.

## Gazette.

### PARTNERSHIPS DISSOLVED.

Holt, G. C., and Holt, C., under the style of G. C. Holt & Co., Bugington, Congleton, soap and perfumery manufacturers and dry-salters.

Webster, R., Adams, W., and Webster, G. A., under the style of Adams, Webster & Co., Hackney Downs, Lea Bridge, Leyton, and elsewhere, chemical and other manure and disinfectant manufacturers and carbolic and chemical manufacturers.

### THE BANKRUPTCY ACTS 1883 AND 1890.

#### ADJUDICATION.

Stephens, Johnathan, Devonport, chemist and druggist.

#### ORDERS MADE ON APPLICATION FOR DISCHARGE.

Delpech, Henry (trading as H. Delpech & Co.), Mimosa Street, Fulham, and Mining Lane, City, merchant, broker, and agent: discharge suspended for ten years.

Storer, David, Wharf Road, Milwall, Poplar, residing at Blackheath, Kent, lately of Wharf Road, Milwall aforesaid, Billiter Avenue, E.C., Glasgow, and Sydney, New South Wales, sometime trading at Thorn Mill, Johnstone, Renfrew, Scotland, paint manufacturer and merchant, lately trading in co-partnership with John Storer, Thomas Storer, and William Storer as David Storer & Sons, sometime trading in co-partnership with Macleroy, Nelson, and Alexander Storer, at Thorn Mill aforesaid, as Nelson, Storer & Sons, cotton-spinners discharge suspended for two years.



## OIL IN PHARMACEUTICAL POWDERED RHUBARB.

By B. S. PROCTOR.

REMARKS in some recent numbers of THE CHEMIST AND DRUGGIST show that there is still wanting a knowledge of what the powdered rhubarb of pharmacy is, and what it ought to be in respect to oil or fatty matter.

I do not propose to enter into any controversy with your other contributors who may deny that it is the custom of grinders to add oil for the purpose of facilitating the grinding, preventing loss by dust, or improving the colour of the product. My belief is that 1 or 2 per cent. of oil added in the mill has all these effects—good effects from the point of view of the grinder, and not to be viewed as adulteration in the ordinary meaning of the word, but just as much adulteration as the addition of any similar quantity of inert matter which might be added, and much more objectionable than an equal weight of most other inert matters would be. More objectionable because it not only subtracts from the activity of the drug, but is apt to give the unwary buyer the impression that the rich colour of the sample is indicative of its possessing richness in active matters; and, further, it is objectionable because of adding to the difficulty of mixing the compound powder of rhubarb with water.

In the second edition of my work on "Practical Pharmacy," 1833, under the head of "Pulv. Rhei Co.," I stated that "This powder is sometimes exceedingly difficult to mix with water; this difficulty arises almost entirely from oil in the rhubarb forming an insoluble soap with the magnesia. Earthy soaps are exceedingly repellent of water; indeed, so much so that many so-called waterproof fabrics depend entirely on their being impregnated with soaps of this character for their power to turn the rain. The oil is not a legitimate constituent of the rhubarb, but is commonly added in the grinding to improve the colour and appearance of the powder. The trouble which the pharmacist experiences in this particular is a penalty he pays for attaching an exaggerated importance to beauty of colour."

In the approaching edition of the same work I have altered the paragraph in consequence of a belief that powdered rhubarb of commerce has improved in this particular since that date. But though the oil in rhubarb has diminished rather than ceased to be present, considerable difficulty of mixing still continues, because it does not arise *entirely* from oil in the rhubarb, but only "almost entirely." The trouble which still remains, even when the rhubarb is fairly good, results from the oil and resin which are natural constituents of the ginger, and which cannot be removed, as it is upon them that the pungency and value of the ginger depend. In the same work, under the head of "Testing Powdered Rhubarb," I stated that "100 grains of rhubarb, shaken up with an ounce of benzine and thrown upon a paper filter, should yield a residue on evaporation of the filtrate which should be yellow, unctuous, and not more than half a grain in weight. Good commercial powdered rhubarb generally yields more than this, but the analysis of unground roots yielded much less."

These observations apply to a period some time past, and if the publication of them at that time had resulted in any considerable number of pharmacists giving attention to the purity of the rhubarb supplied to them, we should by this time have had the commercial supply free from oil; but an examination of the following samples, obtained through the courtesy of my neighbours and representing the articles supplied at the present day by firms of the highest standing, will show that there is still room for improvement, and still reason why pharmacists should test their powdered rhubarb.

The method of examination which I have in the present case adopted is to pack 100 grains of the sample in a small percolator, and pass chloroform through it till the percolate leaves only a trace of residue when a drop is evaporated on a slip of glass. When sufficiently exhausted, the percolate was evaporated in a tared dish and weighed.

A point which it is necessary to keep in mind is that rhubarb is not entirely destitute of fatty matter. Dragendorf estimates the amount at 0.15 per cent., and traces of other constituents are also extracted by chloroform, benzene, ether, &c., which may be used for extracting the oil. I have given a preference to chloroform over ether because the latter has more solvent action upon the natural constituents of the root, and chloroform is a cheap solvent found in every pharmacy in a high degree of purity.

It would be fair to make a deduction of 0.2 from the results obtained and given below, as that is the yield of fat and colouring matter obtained by the same treatment of a sample of the root especially powdered for comparison.

I must also add that my object is not to impress upon my fellow-pharmacists the importance of the results I now give, as it is to induce them to examine, each for himself, the powder which he purchases, and compare the result with a sample of his own powdering. Anyone finding more than 0.5 per cent. of oily matter in the commercial powder over that contained in a sample of his own grinding has legitimate ground for stating to his providers that the article supplied is not of the nature and quality of that desired:—

					Per cent. oil and colour extracted
1.	Standard pure	..	..	..	0.2
2.	T. N. Y., No. 1	..	..	..	1.4
3.	T. N. Y., No. 2	..	..	..	2.2
4.	L. S. Y.	..	..	..	0.4
5.	S. & Co.	..	..	..	0.5
6.	S. S.	..	..	..	Oil present
7.	S. S.	..	..	..	..
8.	R., No. 1	..	..	..	1.0
9.	R., No. 2	..	..	..	1.0
10.	S. R. E., No. 1	..	..	..	1.3
11.	S. R. E., No. 2	..	..	..	2.2

The samples 6 and 7 were not identified with any particular grinder by the retailer from whom I obtained them, so I am satisfied with the statement that I found evidence of added oil where an exact estimate was not made.

Samples 3 and 9 are two qualities from the same source, but were small samples; the percentage, however, will have about the same degree of accuracy as the others.

Finally, the behaviour of the rhubarb not mixed with magnesia is little guide to how it will behave when made into compound rhubarb-powder, and the behaviour of compound rhubarb-powder when freshly made is not indicative of what it will do when a month or two old.

## MY SOAP.

*Punch* has no soap advertisement this week, but there are eight verses of rhyme, beginning—

I'm the maker of a Soap, which I confidently hope  
In the advertising tournament will win.  
And remain the fit survival, having vanquished every rival  
Which is very detrimental to the skin.

The poetaster proceeds to enumerate the iniquities of soaps in general, alkali, resin, and fat, in particular, making a horrible nightmare, but—

In short, the only Soap which is fit for Prince or Pope  
(I have sent some to the Kaiser at Berlin)  
Is the article I sell you. Don't believe the firms who tell you  
It is very detrimental to the skin.

And this is accompanied by a chubby child, who seems to have mistaken a cake of soap for candy, judging by the way he smacks his lips.



## SALE OF GOODS BY SAMPLE, WARRANTIES, &amp;c.

By A SOLICITOR.

TRADERS are often painfully reminded of the fact that goods purchased by them are not always of the nature, substance, and quality demanded. It generally happens, too, that the innocent party is the one to suffer. It is well to consider, therefore, in what position those concerned stand with regard to their vendors, whether the goods are purchased by sample or otherwise. When the contract is to furnish

## MANUFACTURED GOODS

they must be of a merchantable quality, and this is so even when the sale is by sample. It was held in *Johnson v. Raylton*, 7 Q.B.D., that in the absence of usage there is an implied contract by a manufacturer who sells goods that they are of his own make, so that he would not be justified in supplying equally excellent articles made by some other manufacturer. There is a distinct advantage, too, in buying of the manufacturer, as he cannot say he was unaware of the inferior or adulterated character of the goods.

## SALES BY SAMPLE.

In the case of a sale by sample there is an implied undertaking that the sample is fairly taken from the bulk; but no further warranty (unless it would have arisen if the sale had not been by sample) is implied. If, however, a vendor makes express representations as to the character of the goods, he cannot shelter himself behind the sample and so get out of making good such representations.

Lord Macnaghten says:—

The office of a sample is to present to the eye the real meaning and intention of the parties with regard to the subject-matter of the contract, which, owing to the imperfection of language, it may be difficult or impossible to express in words. The sample speaks for itself; but it cannot be treated as saying more than such a sample would tell a merchant of the class to which the buyer belongs, using due care and diligence and appealing to it in the ordinary way, and with the knowledge possessed by merchants of that class at the time.

In the case of *Parkinson v. Lee* the defendant sold the plaintiff a quantity of hops by sample. The bulk fairly answered to the sample; but both sample and bulk had a latent defect which made the purchase useless to the plaintiff. It was held that there was no implied warranty that the hops were merchantable or good for anything. It was held that plaintiff ought to have provided against the risk by requiring a special warranty; instead of which a sample was fairly taken from the bulk, and he exercised his own judgment upon it.

The custom of a particular trade may, however, raise an implied warranty, and it is almost certain that in the case of the sale of goods comprised in the *British Pharmacopoeia* to a chemist, the Court would hold that it was intended that the goods should be equal to the standard, unless there was something in the contract to negative such presumption.

## SALES BY DESCRIPTION.

Where goods are sold by description and the buyer has not seen them, there is an implied warranty, not only that they answer the description, but that they are merchantable. But it is not, as a rule, an implied term in the contract that the thing sold shall be fit for the purpose for which it is required. The purchaser must get an express warranty if he wants his goods for a particular purpose, and that is his safest course in any case.

By the 17th section of the *Merchandise Marks Act, 1887*, a warranty of genuineness is to be implied from a trade-mark or description.

## A WARRANTY,

it must be remembered, is a very different thing from a condition of the contract in the strict legal meaning of the term, although confusion has often arisen from a careless interchange of the two words. A warranty, though part of the contract, is really in itself a separate and distinct undertaking that a particular representation shall be true; and if,

in the end, it proves to be untrue, the remedy is for breach of this agreement of warranty, so that the original contract is not thereby avoided as it would be on the non-performance of a condition. It is, however, optional with the purchaser to treat a condition as a warranty.

We had recently to consider this matter in answer to one of our correspondents, and we again draw attention to two of the important cases that were therein referred to. The first, *Josling v. Kingsford*, decided in 1863, was shortly as follows:—

"The sale was of oxalic acid, and it had been examined and approved, and a great part of it used by the purchaser, and the vendor did not warrant quality. On analysis it was afterwards found to be chemically impure from adulteration with sulphate of magnesia—a defect not visible to the eye, nor likely to be discovered even by experienced persons. There were two counts in the declaration, one for breach of contract to deliver 'oxalic acid,' the other for breach of warranty, that the goods delivered were 'oxalic acid.' Erle, C.J., told the jury that there was no evidence of a warranty, and that the question was whether the article delivered came under the denomination of oxalic acid in commercial language. The jury found for the plaintiff, who was held not bound to accept the goods, and this decision was upheld on appeal."

We see, therefore, that if a specific existing chattel is sold by description, and does not correspond with that description, the vendor fails to comply, not with a warranty or collateral agreement, but with the contract itself, by breach of a condition precedent. The vendor in the above case was held bound, as on a condition precedent, to deliver "oxalic acid," although he had exhibited the bulk of the article sold to the buyer, and written to him that he would not warrant its strength, in order to "avoid unpleasant difference," and suggested to him to make a fresh examination if he thought proper.

"In *Mody v. Gregson* the defendant agreed to manufacture and supply 2,500 pieces of grey shirting according to sample, at 18s. 6d. per piece, each piece to weigh 7 lbs. The goods were manufactured, delivered, and accepted by plaintiff's agent as being according to sample, and they probably were so, although the fact did not very distinctly appear. But the goods contained a substance called China clay to the extent of 15 per cent. of their weight, introduced into their texture by the manufacturer for the purpose only of making them weigh the contract weight of 7 lbs., and the goods, which otherwise would not have reached the required weight, were thus rendered unmerchantable. The defect was discovered on their arrival at Calcutta; but when the goods were accepted from the vendor in Manchester the purchaser could not tell by examination or inspection whether they or the samples contained any foreign ingredient, introduced to increase their weight, or any other than the usual quantity of size employed in making such goods. Under these circumstances the vendor insisted, in defence, on the general proposition that 'upon a sale of goods by sample, no warranty that they were merchantable could be implied.' The Court held that neither inspection of bulk nor use of sample absolutely exclude an inquiry whether the thing supplied was otherwise in accordance with the contract; that if the sellers in this case had expressly agreed to deliver merchantable grey shirting according to sample, without disclosing that the goods were rendered unmerchantable by the mixture of the foreign ingredient, they would have been liable, and that the fact that the goods were not specific, ascertained, nor inspected, and that the sample did not disclose the defect, but, on the contrary falsely represented on its face a merchantable article, taken in connection with the stipulation that the goods should be of a specific weight, which, if properly complied with, would have ensured a merchantable article, amounted altogether to a contract describing the goods and asserting their merchantable quality. The vendor was held bound, and Mr. Justice Willes added these further significant observations:—"The contract, if truly fulfilled, would have given the buyer a merchantable article, and we need not consider whether the direction to the jury might not also be sustained upon the ground that the seller himself made the sample, and must be taken to have warranted that it was one which, so far as his, the seller's, knowledge went, the buyer might safely act upon."



## THE VENDOR AND THIRD PARTIES.

The vendor is not liable to third persons in the absence of fraud, as was illustrated in the case of Longmeid v. Holliday, which is shortly as follows:—

"This was an attempt to make a vendor responsible to a third person, the wife of the purchaser, for injury resulting from the bursting of a lamp, alleged not to be fit for the purpose for which it was bought. The jury negatived fraud on the part of the vendor, or any knowledge that the lamp was unfit for use. The case was put on the ground of a breach of duty in the shop-keeper in selling a dangerous article, which was said to give a right of action in favour of any person injured by its use, though not a party to the contract. But the Court held that the action was not maintainable unless the facts showed such a fraudulent or deceitful representation as would bring it within the authority of Langridge v. Levy, referred to, such action by third persons being an action of deceit founded on tort and not on contract."

## THE REMEDIES OF THE BUYER.

There are several different classes of cases, and it makes a difference whether the goods are in existence at the time of the contract, or whether the property has passed to the purchaser, or whether the purchaser has got possession; but the space at our disposal does not enable us to go into the refined legal technicalities of the subject. As a rule it may be stated that a buyer is entitled to inspect and test the goods that he has purchased, but he must not use more than is necessary for that purpose. For instance, a baker may bake a batch of bread, and then reject the flour; but he would not be justified in baking the flour for several days, and then claiming to be entitled to return the balance. His remedy would then be in damages.

There is a recent case of Wagstaff and the Shorthorn Dairy Company, where the vendor of seed potatoes was held liable for the deficiency of the crop, the potatoes having proved practically worthless for seed purposes.

The cases that are likely to occur among druggists are where goods have been delivered and turn out to be of inferior quality. The buyer has generally three remedies:—

"1. He may reject the goods, and may then treat the case as one of non-delivery, and sue the vendor for damages for such non-delivery.

"2. He may keep the goods and sue the vendor for breach of contract.

"3. He may set up the breach of contract in reduction of the vendor's claim in an action for the price of such goods."

He will not be debarred from an action for damages against the vendor by exercising such last-mentioned remedy if he has suffered special damage; but a claim for special damage can only be set up either in a cross action or by means of a counter-claim. Special damage cannot be pleaded in reduction of price.

An instance of special or consequential damages would be the expense to which a purchaser might be put if he were prosecuted under the Food and Drugs Act, and probably the loss of trade and reputation thereby occasioned. Still, there is no case which goes to this extent that we are aware of. But a vendor is not liable for damage which would not be in the contemplation of a prudent person, who considered the matter at the time of making the contract. Where, however, knowledge of adulteration can be brought home to the vendor, the buyer's case is, of course, very much strengthened, as the action is then one of tort, and not of contract, and the damages are much more elastic.

THE LATEST ANALYSIS OF SEQUAN'S OIL which we have seen is one said to be by "Hofman and Robertson." They give it as being 33 per cent. of cod-liver oil and 67 per cent. of turpentine, perfumed with oil of lavender. This is a miserable attempt considering that the preparation has a sassafras odour.

M. CONSTANTIN PAUL, in a communication to the Société de Thérapie (Union Pharmaceutique) states that Allcock's plasters are prepared by making a solution of indiarubber in chloroform or carbon sulphate, and adding to it about 5 per cent. of a mixture of vaseline, powdered olibanum, and gum myrrh. The indiarubber solution is evaporated to a suitable consistency and spread on perforated tissue.

## DEED OF ARRANGEMENT.

Fryer, Joseph, 31 Miller Street, Manchester, and 7 Vincent Avenue, Oswald Road, Chorlton-cum-Hardy, wholesale druggist. Trustee, William Griffith Griffith, 27 Kelvert's Buildings, Manchester, accountant. Dated April 4; filed April 12. Unsecured liabilities, 2,553*l.* 13*s.* 1*d.*; estimated net assets, 206*l.* 11*s.* 9*d.*; creditors fully secured, 64*l.* The following are scheduled as creditors:—

	£	s.	d.
Barron, Harveys & Co., London .. .. .	32	0	0
Bateher & Co., London .. .. .	41	12	8
Beresford, W., Manchester .. .. .	15	1	6
Berry, W., Manchester .. .. .	15	9	4
Bertshaw & Turner, Manchester .. .. .	11	17	0
Brittain, William, Darlington .. .. .	60	0	0
Browu, Ann, Birmingham .. .. .	236	0	0
Burgess, Chas., & Sons, Liverpool .. .. .	14	6	2
Burntisland Oil Co., Edinburgh .. .. .	17	8	0
Bury, John, Manchester .. .. .	27	5	5
Butterworth, Alcock & Co., Manchester .. .. .	10	10	11
Carr & Sons, Carlisle .. .. .	10	16	0
Catana Ogar Co., London .. .. .	19	13	6
Colman, J. & J., London .. .. .	17	6	9
Compagnie Française, London .. .. .	11	18	6
Cook & Co., Leeds .. .. .	42	3	4
Cooper, A., Norwich .. .. .	10	4	3
Crawford & Sons, Edinburgh .. .. .	10	10	6
Crossfield & Co., Widnes .. .. .	27	19	0
Derby Vinegar Co., Derby .. .. .	20	18	4
Dewsbury Confectionery Co., Dewsbury .. .. .	31	4	3
Dunderdale, Liverpool .. .. .	10	4	4
Dyson & Co., Eliand .. .. .	20	0	0
Ellis & Co., Liverpool .. .. .	31	8	0
Gossages & Son, Widnes .. .. .	29	1	6
Gray, Dunn & Co., Glasgow .. .. .	11	15	8
Grocers' Defence and Supply Co., Manchester .. .. .	43	16	1
Ganner, Morton & Goddard, London .. .. .	14	3	8
Hansons, Sons & Barter, Liverpool .. .. .	25	19	6
Hargreaves Bros., Hull .. .. .	12	10	0
Harris & Co., Liverpool .. .. .	22	19	11
Hasting, Patrick, Chorlton-cum-Hardy .. .. .	19	0	0
Hazlehurst, Raucorn .. .. .	14	14	3
Hills & Underwood, Norwich .. .. .	14	5	10
Hodgson & Simpson, Wakefield .. .. .	54	14	6
Hooper, London .. .. .	11	0	0
James, E., & Sons, Plymouth .. .. .	18	7	6
Keeling, Liverpool .. .. .	29	12	0
Kemp & Sons, Horneastle .. .. .	26	16	5
Lancashire & Yorkshire Bank, Manchester .. .. .	240	0	0
Lloyd, Watkins & Bell, Liverpool .. .. .	16	13	1
Lowcock & Dodd, London .. .. .	8	1	5
Manchester Corporation .. .. .	12	8	9
Milne Bros. (Limited), Aberdeen .. .. .	19	11	11
Morris & Callard, Carmarthen .. .. .	14	10	8
Naylor, Wilson, Liverpool .. .. .	57	9	3
Pearson & Co. (Limited), Manchester .. .. .	10	7	5
Peck, Frean & Co., London .. .. .	31	10	0
Polson & Co., Paisley .. .. .	23	7	3
Powell & Sons, Preston .. .. .	21	2	0
Reckett & Sons (Limited), Hull .. .. .	14	6	8
Ripley, R., Liverpool .. .. .	39	13	0
Rochdale Tallow Candle Co., Rochdale .. .. .	16	0	4
Rowntree & Co., York .. .. .	14	2	6
Rushworth, Thomas, Manchester .. .. .	20	0	0
Sagar, J. W., & Co., Manchester .. .. .	36	18	1
Sankey, Manchester .. .. .	15	12	0
Stephens, Son & Co., Gloucester .. .. .	21	2	10
Taylor, J., & Co., Liverpool .. .. .	21	7	8
Terry & Son, York .. .. .	17	19	11
Thorn, D., & Co., Salford .. .. .	10	19	5
Thorns, Leeds .. .. .	22	19	8
Tingley & Son, Darwen .. .. .	110	18	0
Watson & Son, Leeds .. .. .	59	16	6
West Riding Candle Co., Rotherham .. .. .	37	16	0
Whittaker & Sons, Manchester .. .. .	19	13	2
Woolley & Co., Manchester .. .. .	16	5	0
Wyleys (Limited), Coventry .. .. .	21	15	6

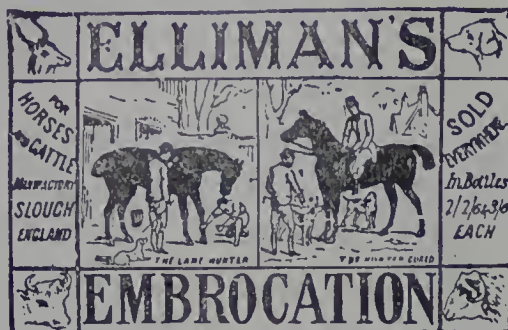
THE best thing to cover the taste of guaiacol, it is said, is essence of coffee, such as Symington's pure essence. Use ten times as much of this as the guaiacol.



Registered "SANITAS" Trade Mark  
**DISINFECTANTS**  
 AND  
**APPLIANCES.**

PRICE LIST AND PAMPHLET ON APPLICATION.  
 THE SANITAS CO., LIM., BETHNAL GREEN, LONDON, E.

SHOW CARDS, 24×17 or 17×12,  
 Free to any address in the United Kingdom.



See first page, facing inside of front of cover, in the first issue of the month, for latest particulars.

THE NEW EMBROGATIVE BALM FOR HUMAN USE.

**DAY'S OIL OF THE NIGHT**

1/1½ and 2/9 per bottle.

WRITE FOR TERMS FRAMED TO PREVENT CUTTING.  
 DAY & SONS. CREWE, CHESHIRE.

*In Strength + Ingredients  
 Identical with B.P.  
 Miscible Fluid  
 Extract of Alkalies  
 not used in production  
 Unnery's  
 Wright, Hayman & Unnery, Southwark, London*

**SILICATED CARBON  
 FILTERS**

PATENT SELF-AERATING  
 MOVEABLE BLOCKS  
 WORKS, BATTERSEA LONDON, S.W.

"CYMRY AM BYTH."

ABSOLUTELY PURE.



REGISTERED.

**ELLIS'S  
 TABLE  
 WATERS.**

ASK FOR ELLIS'S.

CAUTION.—Corks branded "R. ELLIS & SON, RUTHIN." Every Label is Registered, and bears Name and Trade Mark (Goat on Shield).

SOLE ADDRESS—R. ELLIS & SON, RUTHIN,  
 NORTH WALES. [2]

London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

**MEDICAL ELECTRICITY.**



EVERY DESCRIPTION OF

Galvanic, Faradic, and Electro-Magnetic  
 Machines and Electrodes, Galvano Cautery and  
 Lighting Instruments.

Lists Free. Descriptive Catalogue, 100 Illustrations,  
 32 pages, 4 stamps.

GENT & CO., LEICESTER.

GIVE UP CONCENTRATED INFUSIONS, AND USE

*Fletcher's  
 Concentrated Liquors*



**METHYLATED SPIRIT AND  
 MEDICINES.**

A CORRESPONDENT asks us whether it is legal to make the liquid blister on page 28 of "Veterinary Counter Practice" with methylated spirit, instead of with turpentine, as there ordered; also whether he may make Leeming's Essence with methylated instead of with rectified spirit.

As he does not tell us his formula for Leeming's Essence, and also as we do not care to discuss the art of imitating proprietary preparations, we leave the second query alone. But the first question is one of some interest to chemists generally, and is worth clearing up.

The Spirits Act of 1880 (43 and 44 Vict., c. 24, s. 130) provides that if any person uses any methylated spirit or any derivative thereof in the preparation of any article capable of being used wholly or partially as a beverage or internally as a medicine, or sells or has in his possession any such article so prepared, he shall be liable to a penalty of 100l.

The formula referred to prescribes 4 oz. of powdered cantharides in one pint of turpentine, and the writer adds, "Methylated spirit may be substituted for the turpentine." Of course the prescriber had only therapeutic considerations in his mind, but the question now very properly raised is whether the substitution involves the serious risk of infringing the Excise law. It may be of some use in this connection



to give a brief retrospect to see how this prohibition got into the statute.

Permission to make methylated spirit, and to use it in certain arts and manufactures, was first granted in 1855. Retailers' licences were not at first granted, and any person desiring to use it had first to make an application to the Board of Inland Revenue, stating the purposes for which he intended to employ it, and other particulars. He had to give a bond, and his premises were subject to inspection. In the first year or so of the operation of the new regulations the Board of Inland Revenue granted permission to druggists and manufacturers to use this duty-free spirit for the manufacture of medicinal tinctures and extracts. The first permission of this kind appears to have been granted to the Apothecaries' Hall, who had been peremptorily required by the Army Medical Board to supply some methylated soap liniment. It was curious that the demand for this economy should have arisen in this way, as it was obvious that no Governmental saving was really effected. What one department saved another lost. It was also found that spirit of nitre made from methylated spirit possessed no disagreeable flavour, but it was further ascertained that pure potable spirit could not be recovered from such spirit of nitre. Pharmacists, to their honour be it recorded, were the first to object to the use of methylated spirit in pharmaceutical processes, though they had obviously an interest in encouraging it. Their protests induced the College of Physicians in November, 1857, to memorialise the Board of Inland Revenue on the subject, and the Revenue authorities at once consented to withdraw all the permissions to make medicines with methylated spirit in force, and to withhold their consent from any similar future applications. First, however, they asked the College whether they considered it desirable that the prohibition should extend, not only to medical tinctures and extracts, but also to all preparations named in the London Pharmacopœia. The College replied that no advantage except cheapness could be urged in favour of a methylated-spirit made medicine, and that this would be more than counterbalanced by the inferiority and noxious quality of the medicines thus manufactured, and they therefore asked that the use of the spirit should be prohibited in all the processes of the Pharmacopœia. Having ascertained that the Edinburgh and Dublin Colleges concurred in this recommendation, the Commissioners issued the order asked of them.

But this did not end the difficulty. There was no statutory prohibition against the use of the methylated spirit, except the general one allowing it to be obtained only by special sanction of the Board; consequently, when, in 1861, the Board of Inland Revenue decided to allow the sale of methylated spirit by retail, there ensued a very widely extended use of the spirit in pharmacy. Pharmacists who wished to be true to the best traditions of their profession were placed at a serious disadvantage, and a lively agitation arose among them. Mr. Reynolds, of Leeds, was the first to expose the evil, and led the protest against the dishonourable competition. The effect on the revenue became also appreciable, and the result was that an Act was passed in 1863 rendering it illegal for any person, under a penalty of 100*l.*, to use methylated spirit, or any derivative thereof, in the manufacture, composition, or preparation of any article whatsoever capable of being used, either wholly or partially, as a heverage, or internally as a medicine. The use of the spirit was, however, expressly permitted in the manufacture of sulphuric ether and chloroform, and provision was reserved allowing the Commissioners of Inland Revenue to sanction its employment in such branches of arts and manufactures as they might approve.

The terms of this Act were practically repeated in the consolidating Spirits Act of 1880, already quoted, and we do not know that there is any other statute expressly affecting the use of methylated spirit in medicine.

Applying now the words of the Act to the case in point, it seems to us impossible to imagine that any sane Court could hold that a mixture of 4 oz. of cantharides with a pint of methylated Spirit was capable of being used internally as a medicine. We should suppose that it was just such a preparation as this that the Legislature intended to allow when it confined the prohibition to medicines capable of being used *internally*. We are bound to add, however, that this does not appear to be the view held by the Board. Their orders of July 24 and October 19, 1876, allowing the use of methylated spirit in the preparation of soap, compound camphor, aconite, and belladonna liniments, evidently assume that these preparations, and such as these, are "capable of being used internally as a medicine." There is a sense in which it may be said that every substance known, animal, vegetable, or mineral, is "capable" of being so used, but we can hardly think a Court would reduce the terms of an Act to such an absurdity. But as it is now practically essential for any user of ordinary methylated spirit (as distinguished from the mineralised article) to obtain the consent of the Board to any employment of it, we conclude that the safest and wisest plan is to apply for that consent in any case. If it should be refused, it still remains legal to employ turpentine.

#### QUININE AND JAVA CINCHONA.

WE publish on another page full statistics of the estimated crop of Java cinchona for 1892. The figures have been collected by the Soekaboemi Agricultural Association, that energetic organisation of Java planters to whose efforts on behalf of the cinchona industry we have often had occasion to refer. This is the fourth year of publication of the Association's estimates, which have fairly stood the test of accuracy, although the actual output has always been rather in excess of the forecast. On this occasion, we are told, special pains have been taken to render the figures as correct as possible, and the Association's efforts have been more generally seconded by individual planters than in any previous season. The statistics show that of the 115 plantations known to exist in the island two have been abandoned since last year, while on three others all the trees have been uprooted. These three plantations only produced an aggregate of 120,000 lbs. of bark, or less than 3 per cent. of the total production—a fact which disposes of the assertion that there has been a general uprooting of trees in consequence of the low prices which have ruled. Moreover, nearly all the uprooted cinchona averaged only 3 to 3½ per cent. of quinine sulphate, a yield admittedly too low to hold out any prospect of successful competition in the future. On the other hand, twenty-six plantations have either not yet come into bearing at all or only yield insignificant quantities, while six others, though still in existence and ready to ship bark under more favourable circumstances, did not harvest any last season. These figures indicate that there is plenty of reserve stock in the island to fall back upon when the market improves. Another important feature of the return is that the quinine value of the bark on almost all the large estates is increasing. The manufacturing bark from Java, which averaged about 3½ per cent. not long ago, will next season represent an average value of nearly 5 per cent. in sulphate of quinine, and that proportion is likely to be still further increased later on. The main interest of the Soekaboemi returns,



however, lies in the fact that, for the first time in the history of the Java cinchona industry, they presage a falling-off, positive as well as relative, in the shipments from the island. If the unit remains where it is now, the compilers expect the quinine output of the island to be fully 10 per cent. less than last season, and even if the unit should improve to  $1\frac{1}{2}d.$  or  $1\frac{3}{4}d.$  per lb., it is likely to fall below that of 1891 by 1 per cent. or thereabouts. Private advices which have reached us simultaneously with the returns state that the actual shipments will almost certainly fall below the minimum mentioned in the returns, unless, indeed, in the unlikely event of a considerable improvement in prices. What the planters aim at in the first place, however, is not so much a considerable advance in the unit value as an assured steadiness in the market, and they will, therefore, endeavour to regulate their shipments in such a manner that the quantities to be offered at the Amsterdam auctions shall be as nearly equal as possible, "experience having proved that the Amsterdam market is an unusually sensitive one, and easily affected by irregularity in the supply."

The position of the Java planters to-day resembles that of their Ceylon colleagues in 1886 in this respect—that the excessive feeding of the European market is beginning to produce the inevitable reaction—but the situation is different from that in Ceylon six years ago, first, inasmuch as there is in Java a heavy supply of rich bark to fall back upon; secondly, because the Java growers have taken to heart the lesson that the indiscriminate production of low-grade, quickly-growing barks does not pay; and, finally, because they have not, as the Ceylon growers had at the time, looming before them the spectre of a new and rapidly-growing source of production the advent of which they are bound to forestall at all hazards. There is no important source of supply behind the Java planters. They have taken the lead of the market, and can keep it if they like. That is a fact about which there cannot be two opinions.

The threatened falling-off in the production of Java cinchona-bark would, no doubt, under ordinary circumstances, make itself felt in the quinine market. But that market has been unhinged to such a degree by speculative sales, that the effect of the laws which usually govern the fluctuations of manufactured products may be retarded for a considerable time. There is certainly no indication yet of any upward movement in quinine, though the signs which would warrant such a tendency are slowly accumulating at the horizon.

#### PROTECTION OF THE TRADE AND OF THE PUBLIC.

A PHARMACEUTICAL chemist calls attention to the sale of a "foot-rot preventive" by unregistered persons. It is, he tells us, a powerful arsenical solution, and he asks, "What are the Pharmaceutical Society doing to protect the trade?" If the preparation is, as our correspondent asserts, a solution of arsenic, it is on all-fours with weed-killer, and the sale of it by unregistered persons could, no doubt, be prevented by the Pharmaceutical Society. It is very desirable in all such cases that the exact facts should be brought before the Pharmaceutical Council, and we shall always be glad to hear, when this has been done, what action, if any, ensues. But it is fair to say, on behalf of the Council, that the exercise of their powers in this direction is rightly regarded by them as a duty of the utmost delicacy. They have no right to use the discretion committed to them "to protect the trade" simply. We think, and we have often urged, that the Pharmaceutical Council have not hitherto

carried out their duty towards the State with the vigour necessary to secure that moderate amount of protection for the public which the Pharmacy Act was designed to provide. No doubt public critics would not have been slow to attack the Pharmaceutical Society if it had shown anything like reckless eagerness "to protect the trade" by means of suits against unregistered vendors of poisons. Courts have occasionally scrutinised a little suspiciously the action of the Society when penalties have been sought. A Lancashire county-court judge once refused to hear a case under the 15th section until he had the opinion of the Attorney-General that it came within his jurisdiction, and in one of the early stages of the famous action against the London and Provincial Supply Association (Limited) a London magistrate manifested an unmistakable sympathy with the defendant. But it has been far more usual to find magistrates and county-court judges cordially in favour of the plaintiffs in cases that have been brought before them. In this they have only fairly represented the public. The objection to accidental poisoning is very earnest and decided indeed, and the public may always be trusted in the long run to support legitimate action in maintenance of the restrictions on the trade in poisons which have been imposed, and even on their extension. Chemists sometimes talk about getting their rights or demanding the repeal of the Pharmacy Act. They may or may not get the former; the latter they are never likely to secure, however united they might be in calling for it. Free trade in poisons is never likely to be again tolerated in this country.

#### ARTIFICIAL SALICYLIC ACID.

THE investigation completed about two years ago by Messrs. Dunstan and Bloch, and supplemented by Professor Charteris, left it somewhat uncertain as to whether artificial salicylic acid can be obtained absolutely identical with the natural product—at least, on a commercial scale. Apart from the work of these investigators, which undoubtedly served to call special attention to the salicylic-acid question in this country, much has been done to show that a determination of the melting-point of the acid is the best criterion of its quality, and it has been admitted that the B.P. figure,  $155^{\circ}C.$ , is too low. In this connection Messrs. Helbing and Passmore have just completed an examination of a well-known brand of salicylic acid and its sodium salts, the result of which, as published in "Helbing's Record," contains several interesting points. The investigators confirm previous observations, in stating that the melting-point of the pure acid is slightly below  $157^{\circ}C.$ —to be exact,  $156.85$ – $156.86^{\circ}C.$ —and they find that fractionation of the silver salt is the quickest and surest means of determining the purity of the acid, since any cresol derivatives which may be present accumulate and come out in the last fractions. In one respect, it is a matter of regret that Messrs. Helbing and Passmore were not dealing with a less pure acid than they had, for in the worst sample, melting at  $156.4$ – $156.75^{\circ}$ , the amount of impurity was only about 0.1 per cent., whilst Messrs. Dunstan and Bloch dealt with acids melting at  $154^{\circ}C.$ , and the like. In fractional crystallisation with silver, a known weight of the acid is first converted into the sodium salt, and freed from carbonic acid by adding a trace of nitric acid, and boiling. During ebullition a 10-per-cent. solution of silver nitrate is added in quantity sufficient to precipitate from a tenth to a fifth of the salicylic acid. Silver salicylate is practically insoluble in hot water, and, unlike lead salicylate, has no tendency to the formation of basic salt, a disadvantage which gave Messrs. Dunstan and Bloch much trouble, and to which is



probably due to the want of regularity in the melting-points of their fractions. After the first fractionation with silver, a second, third, and fourth, or even more may be made, using increased quantities of silver nitrate until 50 or 60 per cent. of the acid has been precipitated, and then decreasing the size of the fractions. Much depends upon the initial melting-point of the acid: should this be low, it is advisable to keep the larger fractions towards the end, so as to accumulate the impurities in them. The acid is regenerated from the silver salicylate by digestion with boiling water and an excess of hydrochloric acid, the mixture filtered, the salicylic acid crystallised twice and dried. The melting-point of each fraction is then determined. In one case Messrs. Helbing and Passmore found four fractions from a "physiologically pure" acid melted at the same temperature—viz.,  $156.85^{\circ}\text{C}$ .—the residuum melting at  $156.84^{\circ}\text{C}$ . The sample was, therefore, "chemically identical with the natural acid from oil of wintergreen." As showing the delicacy of this method of testing, we observe that the last fraction of another specimen (7 per cent. of the quantity taken) melted at  $156.3^{\circ}\text{C}$ ., the others being normal; and the last of another (10.5 per cent.) melted at  $155.9^{\circ}\text{C}$ . As Fischer found that the presence of 1 per cent. of cresotic acids reduces the melting-point of salicylic acid by about  $1^{\circ}\text{C}$ ., it is obvious that these last fractions give a very critical indication of quality, especially when the initial melting-points only vary from the normal by fractions of a degree. It is here that Messrs. Helbing and Passmore have done good service, for while Messrs. Dnnstan and Bloch stated that they obtained the best results by silver fractionation, they gave no figures for guidance, and these later results show that silver fractionation ensures true separation of salicylic acid from its objectionable contaminants. Another point brought out by the investigation is that sodium salicylate in crystals is anhydrous, or practically so, the loss on drying at  $104^{\circ}\text{C}$ . being only 0.24 per cent., the B.P. formula  $(\text{NaC}_7\text{H}_5\text{O}_3)_2 \cdot \text{H}_2\text{O}$  requiring 5.3 per cent. The loss of scale salicylate was 0.23 per cent., and of powder 0.19 per cent. The obvious conclusion is that sodium salicylate does not contain water of crystallisation, the little which there is present being mechanically retained after drying.

### ADVERTISEMENTS OBJECTIVELY CONSIDERED.

WE have sought these past two years to collect and focus the opinions of our subscribers on the advertisements which have appeared in our last two DIARIES, and the result of our latest inquiry was published by us a fortnight ago. The method of investigation adopted was to issue a coupon, on which a series of questions respecting the advertisements was printed, with each DIARY, and to offer prizes for the sets of answers most closely according with the general vote. This system is by no means ideally perfect. In the first place, we have only been able to induce about 10 per cent. of our subscribers to take part in the competition; and, secondly, we have to remember that these are expressing, not so much their personal predilections as their forecast of the general opinion. We shall be glad to get suggestions of better means of ascertaining what those addressed at considerable cost of money and trouble think of the advertisements by which they are appealed to. At present advertisers can only judge of the artistic merits of their literary productions from their own points of view. They have, it is true very definite opportunities in their own balance-sheets of discovering the effects of their advertisements as a whole, but it is very difficult indeed for a large operator to distin-

guish between the results of this, that, and the other particular form of announcement.

Such as it is, however, we have looked through our competition with the object of ascertaining what it principally conveys. We confess that the most obvious conclusion to be arrived at is that which we have suggested on former occasions—namely, that there is no possible deducible science of advertising. Illustrated advertisements are evidently popular. Note the popularity of Cadbury's serious investigator, of Bowers Brothers' humorous heads, of Armbrrecht's coca-leaf, of Moss's Galen, and of Woolley's well-designed page. Another kind of advertisement which, in such a book as the DIARY, always commands interest is the price-list. This is useful for reference, and, perhaps, the ideal of such a collection of advertisements would be a series of price-lists all illustrated wherever illustration could explain anything. The selection of Beecham's pills as the favourite patent-medicine, and of Maw's Alexandra feeding-bottle as the favourite druggists' sundry, are, perhaps, influenced to some extent by familiarity; while it may be that the pinnacle secured by the Fitch type-writer among apparatus was due to its comparative novelty: but the choice of "pepsalia" as the happiest title of a speciality was certainly not suggested by the circumstance of its being a particularly ancient, and therefore familiar, nor its being a new, and therefore startling, name. We suppose it must be allowed to have won its position on its intrinsic merits. It is a very good title; but there are many others—vaseline, lanoline, nepenthe, and chlorodyne, to wit—which ought to have run it much more closely than they did. That readers of advertisements appreciate study and skill manifested in them is evident from the approval accorded to the artistic production of Messrs. Woolley, to the straight talk of Messrs. Bowers Brothers, and of the Guy's Tonic Company. That advertisements should be thoughtfully adapted to the medium in which they are inserted, that it pays to devote to their production some labour and skill, and that if, without being vulgar, a dash of humour can be thrown into them they will be so much the more attractive, are the leading morals suggested by our survey.

### COMMENTARY.

A FRENCH HONOUR.—We have received from several sources copies of a circular letter which has been sent to English patentees by E. Böttcher, of the Parisian Inventors' Academy. This "Academy" has an "examining and patronage committee," which includes the names of MM. G. Jaquemin, chimiste, Professeur à l'Ecole supérieure de Pharmacie, Lesanvage, chimiste et pharmacien de 1<sup>re</sup> classe; and Pannetier, chimiste et pharmacien de 1<sup>re</sup> classe. The president of this "committee" is "Dr. Latschinoff, Professeur de Physique, Officier de la Légion d'honneur," and "although the Academy has been founded only a few years, it has already more than 500 members in the two worlds." The process adopted by the Academy seems to be to get the names and addresses of persons in this country who have letters-patent granted to them, and to them they address the following letter:—

We beg to inform you that the Academy has conferred upon you the title of Honorary Member (membre d'honneur) with award of the first-class diploma and the great gold medal. (gilded)

This honourable title will be of no expense to you, but if you are desirous to receive the Medal and Diploma, you would have to send us a Post money order to be paid in Paris of two Pounds (or bank notes per registered letter) to cover admission taxes freight, &c., and we shall send both well packed and free of charge to your address.

Trusting that our invitation will be favourably received, we are at your



disposition in Invention and Patent matters according to the Statutes of the Academy which are enclosed.

It seems that the Academy has already been attacked by English papers, and M. Boettcher has thought it advisable to reply to these attacks, which he does by printing letters received this year from people in England who have received the diploma and medal, and who think them "very fine," "very beautiful," &c.—for the 2l. It would be ridiculous to say a word against the Academy, whose object is perfectly transparent and, as things go, legitimate; but those who use the diploma and medal of the Academy as symbols of their qualification should be estimated at their proper value—the infinitely small.

**SAFROL.**—The importation into Europe of the waste product, camphor oil, from the distillation of camphor in Japan, has turned out to be a veritable mine of industrial, if not monetary, wealth. At first the oil had solely a medicinal application, but the study of its constituents resulted in the discovery of several valuable components. The most important of these is safrol—the sassafras-like body to which the peculiar odour of the oil is due. This was first isolated by Schimmel, and has since been used extensively to cover the odour of the fatty bases of soap. The discoverers report that the use of the article for this purpose is as great as ever, and that, mixed with citronella or cassia oil, it is also extensively employed, such mixtures being made more lasting by the addition of a little cedar-wood oil. One part of the mixture is sufficient to add to 1,000 parts of common household soap basis. Under the name of "safrine" safrol has been introduced in America as artificial oil of sassafras. The specific gravity (1.108) indicates its source, ol. sassafras, U.S.P., being sp. gr. about 1.090.

**CITRAL.**—The statement by Dr. F. W. Passmore, at the recent pharmaceutical evening meeting, that he had found in the higher boiling fractions of *Eucalyptus cineorifolia* oil a lemon-scented substance, which is probably citral, is of considerable interest at present, for, according to Schimmel & Co., the consumption of citral as a substitute for oil of lemon has increased enormously of late. This body has already been found in the oil of *Eucalyptus Staigeriana* (a citron-scented kind), but is most abundant in various *Citrus* oils, and occurs in oil of lemon to the extent of 7.5 per cent. One part of citral is equal in power to about sixteen parts of oil of lemon, and for use it is recommended to be diluted with fifteen parts of rectified spirit. It is well adapted for flavouring, and has the great advantage of giving clear or so-called soluble essences with weak spirit. Panajotow's test for otto of rose mentioned in this journal, March 12, page 381, appears to owe any accuracy which it may have (and Schimmel & Co. consider it none) to the presence of geranium aldehyde, an isomer of citral, which imparts a bluish-violet colour to fuchsin decolorised with sulphurous acid. As citral only occurs in rose-geranium oil through oxidation of geraniol, it occurred to Schimmel & Co. that the isomeric body rhodinol of otto of rose would also yield citral on oxidation, and this on experiment they found to be the case, so that any otto which has been exposed to light and air gives the bluish-violet reaction, and would be passed as adulterated if Panajotow's statement only were relied upon.

**THE BENZIN OF PETROLEUM**, known in Europe as petroleum ether, is a good antiseptic, and has been found serviceable in the treatment of certain skin-diseases of a parasitic nature. It is best used in mixture with its own volume of a mixture of soft soap.

## REVIEWS

AND

### LITERARY NOTES.

*The Law of Bankruptcy; showing the Proceedings from Bankruptcy to Discharge.* By C. E. Stewart, M.A. London: Edinham Wilson & Co. Pp. 200. 2s.

THIS is one of Messrs. Wilson's many cheap and useful legal manuals. This one supplies, fully enough for all usual purposes, the details of bankruptcy law, with which, unfortunately, business men have to make themselves acquainted more or less frequently.

*The Nursing Directory for 1892.* First annual issue. London: The Record Press (Limited). 5s.

THE names and addresses of some two thousand registered nurses are given, together with their appointments; also particulars of the nurses' training-schools in the United Kingdom. The editor assures us that there are many imperfections in the volume, but he does not seem to have taken that circumstance into consideration in fixing the price of his work, which seems to us unreasonably high.

*Epitome of Mental Diseases, for Practitioners and Students.* By James Shaw, M.D. Bristol: John Wright & Co., Pp. 345. 6s.

DR. SHAW is an experienced authority on mental disorders, and in this work he has condensed not only his own judgment, but generally the literature of the subject of insanity and mania. The manifold forms of mental derangement, the symptoms and characteristics which distinguish each, their diagnosis, prognosis, pathology, and treatment, both therapeutic and hygienic, and a summary of the legal regulations to be observed by medical men who have to deal with such cases, all find a place in this comprehensive but very concise treatise.

*Englisches Conversations—Buch für Pharmaceuten.* Von Dr. T. H. Barry. Berlin: Julius Springer.

WE reviewed the first edition of this work a few years ago, and we note that the copy before us is the representative of the second edition. It is a little book of 54 pages only, selling, we believe, at a mark (1s.), but it seems to cover fairly the ordinary vocabulary of the Anglo-German pharmacy, and at any rate so far as it goes it is accurate. The drugs and medicines, apparatus, and druggists' sundries likely to be inquired for, the names of diseases, and a great number of technical and miscellaneous terms, with dialogues and forms of correspondence, are given in both languages. The contents also comprise explanations of British weights and measures, and of the forms of English prescriptions. In this edition the author has added the pronunciation of the English words used. The inherent difficulties of this task seem to be ingeniously surmounted, though the result has a quaint effect on the Anglican eye—as, for instance, when we see sage spelt "szehdsch," weak "uihk," solution "szohljuschen," and so on.

MR. RUDOLF CRONAU, a German littérateur who has travelled much in this country and in the United States as special correspondent for the *Gartenlaube*—the *Illustrated London News* of Germany—has undertaken to enlighten his countrymen concerning advertising, and, with this purpose in view, has produced a *Buch der Reklame*, in which he gives an interesting sketch of the growth of the art. With true German thoroughness Mr. Cronau has laboriously tracked the massive tree of advertising to some of its uttermost roots such as the shopkeepers' announcements of Pompeii and the heralds of the Middle Ages. The historical chapters of his book do not tell us much that was not known before, and the modern practice of advertisement, as might be expected, has furnished him with the bulk, and by



far the most entertaining part, of his book. Mr. Cronau mocks at the small-mindedness of the average German advertiser, at his practice of abbreviating the words of his announcement, and of using often the initial letters of the words only, and at his modesty in regard to displayed positions. He quotes the well-known sayings of Horace Greeley and other authorities in favour of bold and constant advertisements, and he points with admiration to the "special numbers" of some of the best technical journals in the English language, "where often," he states, "the book, in front and behind, has as many pages of advertisements as there are literary matter"—a condition which appears to be unknown on the Continent. In Germany, however, it appears that things are improving. Since the consolidation of the empire and the abolition of the Prussian newspaper-tax, the art of advertising in the press is gradually establishing itself, and there is now in Berlin, we are told, a shopkeeper who spends 20,000*l.* a year on newspaper advertisements.

The American patent-medicine man, as might be expected, supplies Mr. Cronau with a rich quarry of examples of the practices of the modern advertiser. "We travelled over a million miles, Mister, we painted over 50,000 St. Jacobs Oil advertisements, using therefor over 500 barrels of linseed oil, 500 kegs of turpentine, and 150 tons of white lead. Our hooks will prove it." The speaker was a travelling advertisement-painter in the service of a Baltimore patent-medicine house, whom the author interviewed, and who boasted with satisfaction of the havoc he had wrought upon the scenery along the track of the American railroads. But, while deploring the vandalism that leads to the destruction of so much natural beauty, the author could not entirely repress his admiration for the enterprise and the courage with which these advertisement-daubers, paintpot in hand, risk their lives to hew almost inaccessible rock fastnesses with the legend of their specific. The man who, hanging half-way down Shakespeare's Cliff at Dover, is supposed to have followed the dreadful trade of a sapphire-gatherer, did not expose himself to greater personal risk than do the American advertisement-painters. There are plenty of anecdotes in the book concerning the Yankee advertisement-painter, most of them more or less familiar to English readers. There is the story of the man who, just after the American civil war, painted Dr. Dider's elixir of life in letters 4 feet high all over old Fort Sumter—one of the proudest relics of that great contest—and that of the man who hung across a rocky ledge adorning a choice position with the tale of the Vitality Bitters, while an irate photographer in the valley below, whose background he was spoiling, kept up a constant, but ineffective, revolver practice at his head.

Commercial advertising is by no means the only development of the art which interests our author. He wanders from the latest American hat and boot advertisements to the devil-exorcising practices of the Brazilian savages, and from the "marriage-advertisements" in the German newspapers to the mummified and tattooed skulls of the Borneo Dyaks. He truly enough remarks:—

There is hardly a single form of civilisation which has not employed the art of advertising in the furtherance of its interests. Commerce and the Church, royalty and vagabondage, artists and scientists, all make use of advertising, and if our historians of civilisation have failed to devote even a single chapter in their works to this important and certainly highly interesting phenomenon, this may simply be ascribed to the fact that they have either overlooked it altogether or erroneously considered it not sufficiently important to devote to it more than a fleeting remark!

If we may gather a moral from such a treatise, it seems to us to lie in the evidence it affords of the increasing attention with which the art of advertising is studied by our most dangerous and persistent continental rivals.

**TRICALCIC PHOSPHATE** (*Calcii phosphas*. B.P.) dissolves in solutions of phosphoric acid to a much greater extent than bicalcic phosphate. So H. Causse has recently determined.

THE following advertisement appeared recently in a Cape paper:—"Wanted, competent persons to undertake the sale of a first-class patent medicine, which is warranted to be a source of profitable income to the undertakers."

## MAJOR EXAMINATION QUESTIONS

WITH MODEL ANSWERS.

THE following are the questions given to candidates for the Major examination in London on Tuesday of this week, and to these we append model answers by an experienced "coach." Although the answers are, perhaps, somewhat fuller than the time actually allowed at the examination would have permitted, they make no pretensions to exhaust all that can be said on the various subjects. The questions and answers in botany and materia medica will be given next week.

CHEMISTRY—(Morning).

(Three hours allowed.)

Question 1. Define isomerism and point out its various forms, giving examples.

Answer. When two or more substances are composed of the same elements in the same proportions, they are said to be isomeric with each other.

There are three principal varieties of isomerism—namely (a) Isomerism proper. This occurs when the substances not only contain the same elements in the same proportions, but also possess the same vapour-density and exhibit similar behaviour under the influence of various reagents. Such substances are recognised as being chemical individuals by differences in boiling or melting points, action upon polarised light, and the like. As examples of this kind of isomerism may be mentioned the three di-brom derivatives of benzene, all of which may be represented by the molecular formula,  $C_6H_4Br_2$ .

(b) Metamerism. In this the substances resemble each other in percentage-composition, and vapour-density, but differ, not only physically, but also in their behaviour with reagents. Examples: Dapropagyl and benzene, which have the common formula,  $C_6H_6$ .

(c) Polymerism. In this case the substances, whilst agreeing in percentage-composition, have different vapour-densities, and hence different molecular weights. Examples: Aldehyde,  $C_2H_4O$ ; and paraldehyde,  $C_6H_{12}O_3$ .

Question 2. How is calcium hypophosphite prepared? Give the equation. Why is the gaseous product of the reaction spontaneously inflammable? Account for the basicity of phosphorous and hypophosphorous acids respectively by a reference to their constitutional formulae.

Answer. Calcium hypophosphite is prepared by boiling together phosphorus and milk of lime until the evolution of phosphine ( $PH_3$ ) ceases, filtering the solution, passing a current of carbon dioxide through the filtrate to precipitate any excess of calcium hydrate, again filtering and evaporating with agitation until a dry product is left.

The following equation approximately represents the reaction:—



A little calcium phosphate is, however, also produced, and the evolved gas contains a trace of the vapour of the liquid phosphide of hydrogen  $P_2H_4$ , and it is to this circumstance that its spontaneous inflammability is due.

Phosphorous acid usually appears to be dibasic, only two of its three hydrogen atoms being replaced by metals under ordinary circumstances; but a sodium salt  $P(ONa)_2$  has been obtained, and triethyl phosphite,  $P(OC_2H_5)_3$ , is comparatively well known. Hence it is better to regard phosphorous acid as being really tribasic, and to give it the formula—



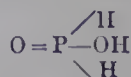
Hypophosphorous acid is generally represented as—



i.e., as phosphine in which two atoms of hydrogen have been replaced by hydroxyl. This formula, however, does not explain the fact that it always acts as a monobasic acid.



If we regard the phosphorus as a pentad in this compound, and assign the following formula,



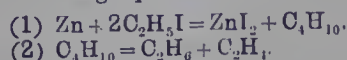
the basicity is explained.

Question 3. Give a process for the preparation of ethyl iodide, and describe the properties of the compound. What is its reaction with metallic zinc?

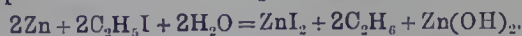
Answer. Ethyl iodide may be obtained by gradually adding iodine to a mixture of red phosphorus and strong alcohol placed in a distilling flask with a suitable condensing apparatus attached. When the reaction is complete, the iodide may be distilled off, washed with water, and redistilled from calcium chloride.

It is a colourless liquid, becoming red on exposure to light; is nearly twice as heavy as water, and boils at 72° C.

When ethyl iodide is heated with zinc alone, a mixture of ethane and ethylene is obtained, these bodies resulting from the decomposition of the butane at first produced. This is shown in the following equations:—



In the presence of water zinc produces ethane only—

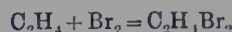


Question 4. What is ethylene, and to what class of bodies does it belong? Name its principal derivatives, and show how they may be prepared from it.

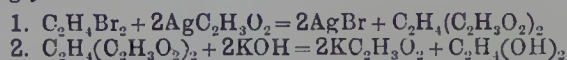
Answer. Ethylene is the name now usually given to the substance formerly known as "heavy carburetted hydrogen," or "olefiant gas." It has the formula  $\text{C}_2\text{H}_4$ , and is prepared by the action of dehydrating agents, such as sulphuric acid, upon alcohol. It belongs to the unsaturated group of fatty hydrocarbons, and is a type of the olefine, or  $\text{C}_n\text{H}_{2n-2}$  series.

Amongst the derivatives of ethylene may be mentioned—

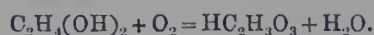
(1) The dihaloid compounds formed by direct addition. Thus, when ethylene is passed into bromine, ethylene dibromide is formed—



(2) Glycol  $\text{C}_2\text{H}_4(\text{OH})_2$ , which may be made by treating ethylene dibromide with silver acetate, thus obtaining ethylene diacetate, which, when distilled with caustic potash, yields glycol.



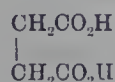
(3) Glycollic acid,  $\text{HC}_2\text{H}_3\text{O}_3$ , made by the oxidation of glycol by platinum black—



Question 5. Describe the sources, characters, and chemical constitution of succinic acid, and indicate its relation to tartaric acid.

Answer. Succinic acid may be obtained (1) from amber, in which it exists ready formed; (2) by the fermentation of a mixture of the juice of mountain-ash berries, chalk, water, and decaying cheese, afterwards decomposing the calcium succinate produced with dilute sulphuric acid; (3) by the fermentation of saccharine solutions when a small quantity of this acid is always formed; (4) by the action of nitric acid upon many fatty substances; (5) by the reduction of tartaric acid by hydriodic acid. Succinic acid is a colourless crystalline body soluble in water and in alcohol, and melting at 80° C. Its salts give no precipitate with hydrochloric acid, but white barium succinate with barium chloride, and reddish ferric succinate with ferric chloride.

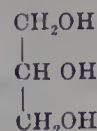
The constitution of the acid is represented by the graphic formula—



and its relation to tartaric acid is shown by describing the latter body as di-hydroxy-succinic acid, and regarding it as derived from succinic acid by the substitution of two molecules of hydroxyl (OH) for two atoms of hydrogen.

Question 6. What is the constitution of glycerine, and how has it been determined?

Answer. Glycerine is a trihydric alcohol and is represented by the formula



The following are amongst the considerations which have led to the view of constitution symbolised by the above formula.

(1) By the action of hydrochloric acid and pentachloride of phosphorus one, two, or three atoms of chlorine can be substituted for one, two, or three atoms each of hydrogen and oxygen, thus proving the existence in glycerine of three hydroxyl groups.

(2) Three classes of ethereal salts are obtainable from glycerine by treatment with acids, one, two, or three molecules of water being set free in the reaction.

(3) The fact that two isomeric mono- and di-chlorhydrins exist is best explained by assuming the truth of the formula given above.

Question 7. Give a general account of the carbohydrates, showing the principle upon which they are classified.

Answer. A carbohydrate is defined as a body composed of carbon, oxygen, and hydrogen, the two latter being in the proportion necessary to form water. They mostly occur naturally in animals and vegetables, and may be represented by one or other of three formulæ and hence fall naturally into three groups, which are:—

I. Glucoses. Formula  $\text{C}_6\text{H}_{12}\text{O}_6$ ; the principal members being dextrose, lævulose, and galactose.

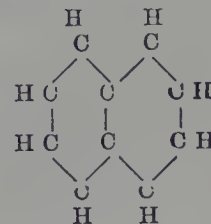
II. Saccharones or saccharoses. Formula,  $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ . The principal members are cane-sugar, or sucrose; milk-sugar, or lactose; and malt-sugar, or maltose. They are considered to be of an alcoholic nature, and may be regarded as formed by the union of two molecules of a glucose with elimination of one molecule of water.

III. Amyloids or amyloses. Formula  $(\text{C}_6\text{H}_{10}\text{O}_5)_n$ . The principal members are starch, inulin, dextrin, and cellulose. They may be looked upon as derived from  $n$  molecules of glucose with elimination of  $n$  molecules of water—



Question 8. Give the chemistry of naphthalene. What are its uses in the arts?

Answer. Naphthalene is a very frequent product of the action of high temperatures upon organic substances. Hence it is obtained during the destructive distillation of coal, and may also be made by passing the vapour of benzene and some other substances through a red-hot tube. From a careful study of the reactions of naphthalene and its derivatives, the molecule of this hydrocarbon is regarded as consisting of two benzene rings so arranged as to have two carbon atoms in common. Thus—



With chlorine and bromine it forms substitution derivatives and also certain additive compounds. With sulphuric acid two isomeric sulphonic acids are produced, called *alpha* and *beta* respectively. By the action of potash upon these, *alpha* and *beta* naphthols result, which bodies have the formula  $\text{C}_{10}\text{H}_7(\text{OH})$ , and bear to naphthalene the same relation that phenol bears to benzene. By the action of nitric acid nitro-naphthalenes are formed by the substitution of the radicle  $\text{NO}_2$  for hydrogen, and, by the reduction of these compounds, naphthylamines, containing  $\text{NH}_2$ , can be obtained.

The principal products of the oxidation of naphthalene are dinaphthyl ( $\text{C}_{20}\text{H}_{14}$ ), phthalic acid ( $\text{C}_8\text{H}_4(\text{CO}_2\text{H})_2$ ), and naphthoquinone ( $\text{C}_{10}\text{H}_6\text{O}_2$ ).

Naphthalene is used (1) To increase the illuminating power of coal-gas. (2) As a disinfectant, and to prevent moths and other insects from attacking articles of clothing and the



like. (3) As a starting-point in the manufacture of several dyes—e.g. Magdala red, campobello yellow, naphthazarin, &c. (4) In the manufacture of benzoic acid.

#### PHYSICS—(Afternoon).

(Three hours allowed.)

Question 1.—*State the law governing the diffusion of gases and describe an experiment in illustration of it.*

*Answer.*—This law may be formulated as follows:—Gases diffuse into each other in the inverse ratio of the square roots of their densities. As an illustrative experiment a glass tube about a foot in length may be closed at one end by a plate of plaster of Paris, filled with hydrogen, and then placed in a vessel of water so that the open end dips below the surface. The density of air as compared with that of hydrogen is as 14.4 is to 1, therefore the rate at which the air will pass through the porous plate into the tube will be to the rate at which the hydrogen will pass through the plate out of the tube as sq. 1 is to sq. 14.4. The result of this will be that the tension of the gas in the tube will be diminished and the water will rise considerably in the tube. The experiment may be varied by putting air instead of hydrogen into the tube and then inverting over it a bell-jar filled with hydrogen. This gas will pass into the tube more quickly than the air will pass out, and hence the level of the water in tube will be depressed.

Question 2.—*Define specific and atomic heat, and give a process by which the specific heat of a solid may be determined.*

*Answer.*—The specific heat of a substance is the amount of heat required to raise unit mass through unit interval of temperature as compared with the amount required to raise the same mass of water through the same interval.

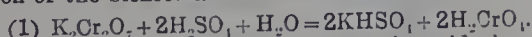
The atomic heat of an element is the product obtained by multiplying together its specific heat and its atomic weight. To determine the specific heat of a solid a known weight may be heated and then plunged into a known weight of cold water. If the initial temperatures of the solid and water be known, and the rise in temperature of the latter be accurately determined, the specific heat of the solid may be calculated by the use of the following formula:—

$$\text{Specific heat} = \frac{M(T - t_2)}{m(t_1 - T)}$$

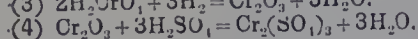
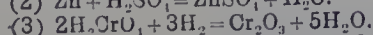
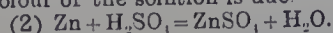
Where M = weight of the water, m = weight of the solid,  $t_1$  = initial temperature of the body, and  $t_2$  = initial temperature of the water, and T = the final temperature.

Question 3.—*Describe the construction and principle of a bichromate battery cell, and represent the reactions which take place in it by equations.*

*Answer.*—A bichromate battery cell consists of a plate of zinc as the negative, and one of carbon as the positive, pole. These are immersed in diluted sulphuric acid, in which bichromate of potassium is dissolved. The object of the bichromate is to prevent what is called internal polarisation—i.e., the adhesion of evolved hydrogen to the carbon, which would tend to arrest the action of the battery. The method in which this polarisation is prevented is apparent from the following equations, which show that the hydrogen, instead of being evolved in the free state, effects the reduction of the bichromate:—



It is to the formation of the chromic acid that the deep colour of the solution is due.



Question 4.—*Define the terms "electrode," "electrolyte," "ion," and mention any technical applications of electrolysis with which you are acquainted.*

*Answer.* When it is desired to decompose a liquid by an electric current the ends of the wires dipping into the liquid and bringing the current from and to the battery are called *electrodes*, and any liquid which suffers decomposition when it conducts a current is called an *electrolyte*. When a substance undergoes electrolysis its molecules are rent into two parts, called *ions*; thus if hydrochloric acid be electrolysed, the hydrogen and chlorine into which the acid is broken up are so named.

Electrolysis receives technical application in the arts of electro-gilding and electro-silvering, as well as in many metallurgical operations.

Question 5.—*Show what occurs when a ray of light falls at an angle upon a plate of glass with plane parallel sides.*

*Answers.* The ray, on entering the glass, will be bent or refracted towards the perpendicular to the surface in such a way that the sine of the angle of refraction will be to the sine of the angle of incidence as 2 : 3; on leaving the glass and emerging into the air the ray will be refracted away from the perpendicular, so that the sine of the angle of refraction will be to that of the angle of incidence as 3 : 2.

It will therefore, on the construction of a diagram, be at once evident that the direction of the ray after passing through the glass will be parallel to its direction before entering. The whole of the ray will not, however, be thus transmitted; a portion will be reflected in accordance with the laws of reflection, namely—

1. The angles of incidence and reflection are equal.

2. The incident ray, the reflected ray, and the perpendicular to the surface at the point of incidence are in the same plane.

If the angle of incidence be small, the light reflected will be but a small fraction of the whole, but this fraction becomes greater as the angle increases. If the light be incident at a particular angle, called the polarising angle, both the reflected and the transmitted ray will be found to have undergone a certain degree of polarisation.

Question 6.—*Distinguish between radiant heat and light, and give some method by which they may be separated.*

*Answer.* There is no essential difference between radiant heat and light; both are forms of radiant energy, and consist of vibrations passing through the ether. The solar spectrum, for instance, is composed of an infinite number of rays varying in refrangibility, only certain of which excite in the human eye the sensation of vision, and hence are light rays properly so-called. Of these visible rays some only—namely, those of lower refrangibility—have a sensible heating effect, which they share with the dark rays beyond the red.

By passing a beam through an aqueous solution of alum the light will be but little decreased in intensity, whilst the heat will in great measure be arrested.

By passing a beam through a solution of iodine in carbon bisulphide the light may be completely shut off, whilst much heat is transmitted.

Question 7.—*What is meant by the "plane of polarisation"? How is it affected by a solution of glucose?*

*Answer.* In a beam of common light the vibrations occur in all planes perpendicular to the direction of the beam, but in a beam of polarised light the vibrations are confined to a single plane, called the plane of polarisation.

A solution of glucose rotates the plane of polarisation to the right.

## Legal Reports.

### THE PHARMACY ACT.

At the Penzance County Court, on April 13, before his Honour Judge Granger, the Council of the Pharmaceutical Society of Great Britain sued R. Kelland, who occupies a chemist's shop in Penzance, to recover 30*l.* penalties incurred by defendant under the Pharmacy Act. Mr. C. W. Flux, of London, appeared for the Society, and Mr. Wellington Dale for the defendant. Mr. Dale said his client consented to judgment against him. Mr. Flux remarked that the Society had proceeded for penalties on this occasion because the defendant had been proceeded against before.

The amount was made up of penalties under the Pharmacy Act for selling nuxvomica, or a preparation of nuxvomica, on two occasions; selling poisons—arsenic, strychnine, and oxalic acid; for keeping open a shop for the retailing, dispensing, or compounding of poisons; and for "taking, using, or exhibiting the name or title of chemist."

### SALMON & ODY TRUSSES.

At the Brompton County Court on Friday last, Richard Allen, painter, sued Mr. Burrows, druggist, of 243 Brompton Road,



for 13s 6d, money paid—for one truss sold by the defendant to the plaintiff as a Salmon & Oly truss, 3s 6d., and 10s., the price paid for obtaining a genuine Salmon & Oly truss. The defendant had paid the 3s 6d. and 1s costs into court.

Mr. W. R. Scndamore, who appeared for the plaintiff, and watched the case on behalf of Salmon, Ody & Co., surgical-instrument makers, stated that though the sum in dispute was small, the subject was one of considerable importance to Salmon, Ody & Co. He asked that the money paid into court by defendant might be taken out of court unconditionally, as it was the intention of Salmon, Ody & Co. to proceed against the defendant and all who acted similarly in the High Court of Justice.

His Honour said that as the money had been paid into court in time, he would give a verdict for the defendant, but that the plaintiff could take it out unconditionally.

#### THE SALE OF FOOD AND DRUGS ACT.

A CURIOUS but successful technical objection was raised in respect to certain summonses under the above Act at the Worship Street Police Court on Wednesday. The sanitary inspector for one of the parishes in the district had laid complaints against half-a-dozen tradesmen of having sold various articles of food not of the nature, substance, and quality demanded. The usual summonses had been granted. The printed part of the summons follows the wording of the section of the Act under which the complaint is laid—namely, "... did sell to one ... to the prejudice of the purchaser, an article of ... [food or drug], to wit ... and which was not of the nature, substance, and quality demanded," &c. In the batch of summonses before the Court the person who had filled in the blanks had erased from the printed matter the word "was" and written in the word "is." On the first summons an objection was taken that the alteration vitiated the summons. Mr. Rose allowed the objection, and one summons after another was written off by him as "dismissed."

#### MR. SELKIRK'S CASE.

THE appeal by Mr. Selkirk, chemist, Cork, against the decision of the magistrate in the recent prosecution by the Pharmaceutical Society of Ireland was listed for trial in the Recorder's Court on Wednesday last, but, owing to the pressure of business, the case was not reached. On the matter being mentioned, the Recorder said it could wait, as Mr. Selkirk is one of the most deserving men in the city.

#### THE MEDICINE-STAMP ACT.

AT West Ham Police Court, on April 20, John W. Brookes, of 27 Caistor Park Road, West Ham, was summoned by the Board of Inland Revenue for vending a preparation known as "Brookes's oil," to be used and applied as a medicine and medicament, without having affixed to the bottle a stamp denoting the duty paid thereon; and, further, with selling a medicine liable to stamp-duty without having a licence in force. Mr. Alpe, who appeared for the prosecution, stated that on the first information defendant was liable to a fine of 10l., and on the next information to a penalty of 20l.

On January 21 Mr. Charles Henry King, a Revenue officer, called at defendant's house and bought a bottle of Brookes's oil. The bottle was enclosed in a wrapper, on which was printed a statement that Brookes's oil was the best remedy for rheumatism and a large number of other ills, but had no stamped label for denoting the duty charged.

Defendant pleaded guilty to the informations, and in defence stated that there had been some correspondence between the commissioners and himself on the subject, and he was not aware that he was liable for the duties.

Mr. Alpe said that the reason the information was not laid till April 2, though the offence was on January 21, and was because of a correspondence between the defendant and the commissioners. The commissioners had offered to compromise the matter on the payment of 1l., and they gave the defendant time to pay the money. He did not pay, and a further extension was granted, and as he had not paid these proceedings were instituted.

The warrant officer, in answer to the magistrate, said defendant was in poor circumstances.

Mr. Gillespie imposed a fine of 20s. and costs for selling the oil without a stamp on the bottle, and 10s. and costs for selling a medicine liable to stamp-duty without holding a licence.

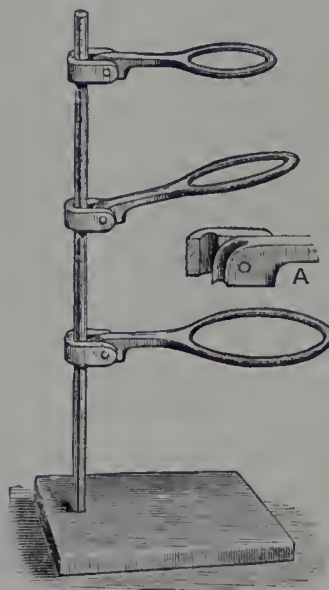
#### A CHEMIST ROBS THE POST-OFFICE.

THE Post-office prosecution of James Harrison, chemist, and formerly sub-postmaster at Silksworth Row, Sunderland, remanded from last week, was heard at the Sunderland Police Court on Wednesday. Harrison had been for about 17 years sub-postmaster, and at the end of last year, in consequence of some irregularity, a Mr. Outler was sent from the chief office to take charge. He engaged defendant as assistant. Two cases of embezzlement were proved. In one George Andre left 30l. in gold to be deposited in the savings bank. Harrison took the money without getting Andre to sign the declaration, and never accounted for it. In reply to inquiries he told Andre different stories about it, and the latter communicated with the head office. Subsequently George Bush similarly paid defendant 8l., and that also was never accounted for. The prosecuting counsel said another charge involving a sum of 80l. would not be gone on with. Prisoner pleaded guilty, and Mr. Marshall, on his behalf, asked the Bench to deal as leniently as possible with him, he having given way to temptation when his affairs got into difficulties. The Chairman said the Bench could not do less than send the prisoner to gaol for six months, with hard labour.

#### Notes of Novelties.

##### SELF-LOCKING RETORT-STAND.

ONE of the 'cutest things in the way of laboratory apparatus which we have seen for some time is the self-locking retort-stand invented by Mr. C. G. Morris, and made by Mr. J. J. Hicks, the scientific instrument maker, of Hatton Garden, E.C. The idea will be seen from the illustration. There is no screw needed to fix the ring to the upright, as the weight of the ring is utilised, in the manner shown at A, to catch the upright securely. When the ring is lifted



slightly, as in the central one of the figure, it is apparent, from the construction of the part A, that the pressure on the upright is released. One can then shift the ring up or down at will, and whenever the ring is allowed to drop, it catches the upright immediately and securely. In the stand which we asked Mr. Hicks to show us, the backs of the U pieces were strengthened by longitudinal "stays," which add to the



security of the rings. The apparatus is exceedingly simple in operation, and we feel sure that any who use it will appreciate the value of the invention, which is also, by the way, adapted for the brackets of metal window-fittings and the like.

### THE MENTHOL ROLLER.

MESSRS. SHIRLEY BROS. have just brought out a new form of menthol cone, in the shape of a miniature rolling-pin. They claim for it that it is so strong that, if accidentally dropped, it does not break—an assertion of which we have proved the correctness by repeatedly dropping the cone upon the floor from a height of 6 or 7 feet. The cone-shape, in which menthol is generally sold, easily breaks, and much of it is therefore wasted, whereas the rolling-pin shape may be used up to the bone, or, rather, the iron wire which runs through the menthol and connects the handles. The new article is made in various sizes—the sixpenny one, which is sold in a nice box, being apparently destined to achieve the greatest popularity.

## Practical Notes and Formulae.

### GILDING FOR SMALL GOLD-BATHS.

DISSOLVE 1 dwt. of fine gold in 2 tablespoonfuls of nitro-muriatic acid. After it is evaporated nearly dry add 1 quart of water, 8 dwts. of cyanide of potash, and 4 dwts. of caustic alkali. Let the whole solution boil for about four to five minutes, and filter it. This solution is now ready for use, and in order to gild, take a piece of zinc and place the things to be plated on the zinc and put it down in the bath, and in a few seconds a colour just as bright yellow as if it was solid gold is produced. By adding blue vitriol and a little more cyanide of potash, the same bath may be used for red colour, like polished solid gold.—*Scientific American*.

### MOUSTACHE FIXING VARNISH.

	Parts
Mastic .. .. .	2
Sandarac .. .. .	4
Colophony .. .. .	12
Spirit of wine .. .. .	16
Ether .. .. .	2

All by weight. Dissolve and strain.

—*Phar. Zeit.*

### HAIR-OIL PERFUME.

THE following formula provides a good and not too expensive mixture:—

Oil of lemon .. .. .	3j.
Oil of cinnamon .. .. .	3ss.
Oil of rose geranium .. .. .	3ss.
Oil of rose .. .. .	gtt. vj.

Mix.

### ALUMINIUM ACETO-TARTRATE

is much used in America at present for a throat-spray in one grain to the ounce solution. Mr. S. A. McDonnell says the best way to dissolve the salt is to drop it into the bottle of water, and shake up occasionally for about twenty-four hours to effect a perfect solution. This is then fit for use, and will keep some two or three months. The salt is very liable to decompose, especially by hot water.

### ANTISEPTIC TOOTH-POWDER.

Resorcin .. .. .	30 grains.
Salol .. .. .	60 "
Powdered orris .. .. .	5viij.
Precipitated chalk .. .. .	5lj.
Carboline .. .. .	3 grains.
Oil of peppermint .. .. .	10 drops.

Mix.

### DIAPHANE POWDER.

It is stated that this is Sarah Bernhardt's favorite powder:—

	Parts
Whitest Venetian talc .. .. .	2
Rice flour .. .. .	2
Zinc white .. .. .	1

Mix and perfume with a sufficiency of the following:—

Oil of bergamot .. .. .	℥xlv.
Oil of ylang-ylang .. .. .	℥xxx.
Oil of neroli .. .. .	℥xxx.
Eau de Cologne .. .. .	5v.

The *rose-tinted* powder is coloured with ammoniacal solution of carmine, and perfumed with a mixture of:—

Oil of bergamot .. .. .	℥xlv.
Otto of rose .. .. .	℥xxx.
Oil of cinnamon .. .. .	℥viij.
Essence of musk .. .. .	℥viij.
Extrait of white rose .. .. .	5v.

The *yellow-tinted* powder is coloured with cadmium yellow, or, better, with yellow ochre and a trace of carmine, the perfume being this mixture, viz.:—

Oil of bergamot .. .. .	℥xlv.
Oil of cloves .. .. .	℥xv.
Oil of cedar-wood .. .. .	℥xv.
Oil of patchouli .. .. .	℥xv.
Essence of new mown hay .. .. .	5v.

### AN OILY SOLUTION OF MYRRH

is a novelty which deserves comment. A patent for the preparation has just been obtained in Germany by Függe. The method adopted is to mix the powdered myrrh with as much castor oil, adding a little alcohol (about a fifth of the weight of the oil). After digesting for eight days, the solution is filtered and the alcohol driven off by heating. This forms a very nice solution, having the taste of myrrh.

### TO COLOUR PHOTOGRAPHS.

PHOTOGRAPHS can be coloured very nicely by a modification of the crystoleum process. Place the photograph face downwards on a pane of glass, and on the back trace with a pencil such outlines as will indicate where the colours are to be placed. Then lay the photograph on blotting-paper, and apply the colours to the back of the print. The colours should be spread on in flat tints, it not being necessary to use demi-tints. For example, a flesh-tint is put on the face, and black or brown on the hair; if the picture is a landscape, the trees are coloured dark green, the sky part blue. It is important to use strong colours, which will show through the paper better. After this operation is finished, and when the colours are dry, the photograph is rendered transparent, with a solution of 1 part of white vaseline in 10 of benzene. The photograph is placed on some sheets of white paper, and the back of the picture is saturated first, pouring the solution on it, and rubbing with the finger to cause the mixture to penetrate first the colour and then the paper. The print is then turned face upward, and this side is saturated in the same way. After this operation the paper becomes oily and transparent, and the colour begins to show through. It is left to soak thus for an hour or two, then both faces are rubbed with linen until no oily spots can be seen. It is then mounted on white paper by means of a resin varnish.

### THYMOL TOOTH POWDER.

Thymol .. .. .	30 grains.
Camphor .. .. .	60 "

Rub together until melted, then add—

Precipitated chalk .. .. .	30 oz.
Powdered soap .. .. .	10 drachms
Saccharin .. .. .	15 grains.
Vanillin .. .. .	7½ "
Otto of rose .. .. .	a sufficiency.

Mix well and sift.

This is a good foreign modification of a C. & D. formula.





*Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.*

*It should also be recollected that for many articles the range of quality is very wide.*

42 CANNON STREET, E.C., April 21.

*London.* The drug market has not yet shaken off the lethargy of the holiday season, and no alterations of importance can be looked for until next week, when the drug sales are likely to be exceedingly heavy. The principal features of the market this week are that cod-liver oil is rather weaker, and for senega-root lower prices would also be accepted. Lime-juice and jaborandi-leaves are both exceedingly scarce and almost out of stock; increased rates have been freely paid lately. There is a report from Bulgaria that the otto of rose crop is likely to be small this year. Ergot of rye, quiet and neglected; copaiba balsam has been in somewhat better demand; opium and Turkey galls are slow of sale. In chemicals there are very few features of interest. Refined camphor is slightly firmer, owing to the increased demand with the advent of the principal season for consumption, but, at the same time, raw camphor is reported to be in a very weak state; citric acid, tartaric acid, and cream of tartar are dull of sale, and barely steady; quinine is flat, and without signs of improvement; quicksilver has been reduced in price; there has been no alteration so far in mercurials; shellac is quiet and easier; sulphur, black pepper, quillaia, gum olibanum, linseed and rape oils, and turpentine are all lower in price, and at to-day's sales of acacia gum very little was sold except at cheaper rates for brown Amrad, Kurrachee, and Ghatti; Australian and Cape gums were also flat; cotton-seed oil is firm, and East Indian indigo rather higher in price. The price of bar silver to-day is 40*d.* per oz. There has been no change in the Bank-rate, which remains at 2½ per cent. The following are the quotations for the Eastern Exchanges:—Bombay, 1*s.* 3¾*d.*; Calcutta, 1*s.* 3¾*d.*; Hong Kong, 2*s.* 9½*d.*; Shanghai, 3*s.* 10*d.*

*Liverpool.* The Liverpool drug market has been very quiet this week. Our correspondent, however, reports a considerable demand for Maranhão copaiba balsam, and the sale, at extreme prices, of a very fine parcel of Syrian asphaltum. Quillaia is rather firmer. Castor oil, chillies, and Chilean beeswax keep up well. There has been some business in colocynth at low prices. African ginger is easier, and Calahar beans are utterly neglected.

*America.* The New York drug-market (say our advices dated 16th inst.) is quiet but hopeful, a good summer trade being looked for. Opium and morphia are both very dull, and hard to move. The American quinine-makers have put down their price by 2*c.* per oz, and now offer at 22*c.*; but foreign second-hand lots may be had as low as 18½*c.* Citric acid is reported firm, but unaltered. Norwegian cod-liver oil cannot be laid down in New York under \$23. Ergot is unsettled. The political disturbances in some of the South American States are retarding shipments of copaiba balsam, and prices are expected to be affected for this reason. In essential oil the principal American distillers and importers are anticipating a particularly brisk trade during the coming season. Truxillo coca-leaves are in good demand, while the market for senna-leaves is bare, with an active demand. Golden seal and senega roots are quiet; but there is a good deal of anima-

tion in sarsaparilla, with sales of Honduras at 34*c.* for export Mexican is held at from 10*c.* to 11*c.* Celery-seed has been the leading article of the week. The stock is being concentrated, and prices are rapidly rising. Jalap is lower owing to reports that shipments are on the way from Mexico. Quicksilver is easier. There have been heavy arrivals (4,000 lbs.) of Guarana and Serpentina and prices have given way.

#### Bad Trade in Germany.

A writer in the *Pharmaceutische Zeitung* points out that the commercial failures gazetted in Germany this year are unprecedentedly high. In February alone there were 797 bankruptcies in the empire, against 592 in February 1891, 492 in 1890, and an average of 448 in the corresponding period of 1880 to 1889. During the first quarter of the year the figures are:—In 1892, 1,637; in 1891, 1,359; in 1890, 1,069; in 1889, 948. German exports to the United States show an enormous decline. From the consular district of Berlin eight million marks of goods less were shipped to the States this year than in the first quarter of 1891. The Magdeburg district shows a loss of 3½ million marks, and Bremen has only exported half the value of last year.

#### Colombian Cinchona Barks.

The specimens of new kinds of cinchona bark from the Republic of Colombia to which Mr. Holmes drew attention at the Pharmaceutical Society's meeting last Wednesday (see page 580) were exceedingly interesting in themselves, but unhappily, from a commercial point of view, the existence of the cinchonas is, at the present time at any rate, of no value. For all practical purposes they might just as well flourish, along with political economy, on the planet Saturn. For, assuming that the supply of the rich Negra and Tuna barks is large enough to warrant their consignment to Europe, the expense of bringing them over will har their appearance in the market for a considerable time to come. Colombia is one of the most backward countries on earth in the matter of internal communications. There are practically no roads, and although short tracts of railway have been made here and there, and numerous concessions for other lines have been given, there is no prospect whatever that efficient railway communication will be established this century with the region where the barks grow. A striking instance of the cost of transport in the country was given in a recent paper on the resources of Colombia, published by the "Bureau of American Republics" in Washington. It is stated there that a bale of goods sent from the Port of Carthagena to Bogotá (the capital of the Republic) has to be unloaded, loaded, and warehoused twelve times, the last part of the journey alone, an eighty-mile run by mules across the Andes, taking "from five to twelve days in good weather." The cost of bringing merchandise from Honda (over 600 miles inland) to Bogotá alone is from 2¼*d.* to 3½*d.* per lb. This route, inverted, would have to be taken by Mr. Thomson's cinchonas, and it is safe to calculate that the freight upon them alone, from Bogotá to London, would cost not less than 5*d.* per lb. As 6-per-cent. cinchona is worth about 7½*d.* per lb. at present, the happy grower is not likely to flourish on the proceeds of his discovery just yet. At the time when the bark prices began to fall Colombia was almost the first country from which supplies ceased to come, and it is believed that, unless prices attain at least double their present figure, this republic will not resume its cinchona exports on a scale of any magnitude. But as common commercial considerations have to take a very hack seat at the Bloomsbury Square meetings, such matters can hardly be expected to find elucidation there.

#### The Coming Otto of Rose Crop.

We have received the following from one of the principal merchants in Kazanlik:—"On Friday, April 8, we had a cold rain which soon took the form of snow on the Balkans, north and south. The next day the sky remained overcast, but on the Sunday morning, after a clear night, the ground was completely covered with hoar frost. This is a disaster for the trees in bloom—such as apricots, &c.—but it cannot be said to have done very great harm to the rose-bushes, which are backward in flowering this season. Indeed, the small huddling-leaves of these bushes were not frozen and still maintained their green colour. Nevertheless the rose-



trees will not remain unaffected by this intemperate weather as the sharp frosts in the mornings must certainly retard the development of the leaves and diminish the quantity of buds. Although the rose-harvest is not as yet seriously endangered, one may safely say that it can attain only moderate proportions, and that no abundant collection can be expected unless warm rains in May make up for the damage which has been done so far." The reports of frost are confirmed by telegrams which have appeared in the daily journals, but we have not been able to obtain corroboration of our correspondent's alarmist views from any other firms, the general opinion being that it is far too early yet to form any judgment with regard to the probable yield of the rose-harvest.

#### The French Drug Business.

The following figures show the imports into and exports from France of some of the most important drugs and chemicals (in kilos.) during the year 1891:

	Imports	Exports
Gums (from Europe) .. ..	43,378	45,993
" (exotic) .. ..	5,821,386	2,354,656
Turpentine .. ..	49,066	178,097
Shellac .. ..	482,022	84,535
Copal and damar .. ..	1,245,395	399,121
Benzoin .. ..	158,837	100,629
Copaiba .. ..	35,320	—
Camphor (raw) .. ..	346,106	—
" (ref.) .. ..	152,677	63,205
Aloes .. ..	83,011	21,151
Opium .. ..	123,207	—
Rhubarb .. ..	7,029	1,461
Sarsaparilla .. ..	112,414	78,348
Jalap .. ..	11,807	8,430
Cinchona .. ..	787,290	162,084
Senna .. ..	96,622	17,790
Medic. flowers .. ..	561,937	317,450
Iodine .. ..	24,910	16,779
Iodide pot. .. ..	1,350	17,465
Phosphorus, white .. ..	—	311,330
" red .. ..	—	28,658
Acid, citric .. ..	10,360	—
Concentr., juice .. ..	557,268	—
Acid, tartaric .. ..	140,175	418,777
Soda, bicarb. .. ..	627,288	86,190
Borax .. ..	95,057	702,840
Chlorate pot. .. ..	—	385,246
Glycerine .. ..	1,976,333	7,230,405
Sulp. copper .. ..	15,123,134	805,518
Quinine .. ..	7,038	11,852
Cream of tartar .. ..	25,974	15,759,521

#### Cinchona-sampling in Amsterdam.

We gave particulars some time ago of a meeting held under the auspices of the Cinchona Warehousing Association in Amsterdam at which it was decided to adopt a new plan of drawing samples of bark. We now understand that the necessary machinery for grinding the bark has been put down, and that the samples for the auction of May 5 next will be treated upon the new system.

#### The Projected Java Quinine-factory.

We mentioned recently that the Java planters intended to send a chemist well acquainted with the cinchona industry to British India to report upon the quinine-works existing there, with a view to the establishment of a factory in Java. The mission, however, is not likely to take place, as the necessary funds have not been forthcoming. A correspondent of the *Indische Mercur* states that two years ago he inspected the works at Nativatam and Mungpoor, in India, but found the process used there quite unsuitable for the proper manufacture of quinine, although since then Messrs. Lawson & Hooper have improved the process in several particulars. He happened to meet in India one of the largest European quinine manufacturers, who had also visited the two factories, and spoke of the process followed there with contempt, saying that, if the freight were not too heavy, he should be glad to buy the already extracted barks from these factories, because the alkaloids are very imperfectly taken out.

ACID (CITRIC).—Quiet, at 1s. 5½d. to 1s. 6d. per lb. on the spot. For forward delivery the quotation is nominal. Concentrated juice varies 20l. 10s. to 21l. f.o.b. Messina.

ACID (TARTARIC).—Very dull. Foreign brands, in crystals, may still be bought at 11½d. per lb. English is held for 12d. to 12½d. per lb.

BALSAM COPAIBA.—The market remains dull. Good bright thick Maranham at 1s. 10d. per lb.; ordinary grades 1s. 7d. to 1s. 8d. per lb.

CAMPHOR (REFINED).—The German agents declare that the market is a little firmer, in spite of the weakness of crude camphor. They quote 1s. 5d. per lb. net.

CHLOROFORM.—The convention of German chloroform manufacturers which has hitherto regulated the production and price of the article in Germany dissolved on Friday last.

CINCHONA.—The exports of cinchona bark from Java during the eight months ending February 28/29 have been as follows:—

	Private Plantations	Government Plantations	Total
	Amsterdam lbs.	Amsterdam lbs.	Amsterdam lbs.
From July 1, 1891, to Feb. 29, 1892	5,463,815	493,184	5,956,999
" " 1890 " 28, 1891	4,838,965	404,645	5,243,610
" " 1889 " " 1890	3,012,630	394,780	3,407,410
" " 1888 " " 1889	2,244,870	529,110	2,773,980
" " 1887 " 29, 1888	2,001,171	490,653	2,491,824

COCA-LEAVES.—A parcel of 73 bales of Java coca-leaves, weighing 4,275 kilos., will be offered at auction in Amsterdam on May 5.

CREAM OF TARTAR.—Quite neglected at 87s. 6d. to 88s. per cwt. for best white French crystals.

DRAGON'S BLOOD.—Eighteen cases have been received from Singapore and Penang this week. They are likely to be offered at the coming auctions.

ERGOT OF RYE.—No business is reported this week. The last quotation for good Russian or German ergot was 1s. 10d. per lb. c.i.f. terms, but that is too high to lead to business.

GALLS.—In spite of the rather heavy arrivals of Turkish and Persian galls, holders still keep up their quotations. It is believed, however, that they will soon be forced to meet the market, in which case a number of orders, which cannot be executed at the current quotations, will no doubt impart a somewhat livelier tone to the market. Blue galls are now quoted at 67s. 6d. to 75s. for Bassorah, and 65s. to 70s. for Smyrna; green at 57s. 6d. to 60s., and 50s. to 52s. 6d.; and white at 52s. 6d. to 55s., and 45s. to 47s. 6d. per cwt. respectively.

GUM ARABIC.—At to-day's auctions the heavy supply of 3,775 packages was offered. Three-fourths of this consisted of East Indian gum, most of the remainder being Aden kinds, while there were small supplies of Mogadore, Egyptian Amrad, Cape, Australian, and insoluble Persian. The demand was slack, and the greater portion of the goods offered was bought in. Sales were mostly effected at lower rates, brown Amrad being from 3s. to 4s. lower, Aden much cheaper, fine Kurachee also considerably lower, Cape and Australian gums dull. The following were the prices paid:—East Indian gums—*Kurachee*: good to fine pale, 61s. to 70s.; yellow to pale beans, 51s. to 58s.; amber and brown ditto, 32s. to 38s. per cwt. *Amrad*: dull brown drop, 27s. to 32s. 6d.; good to low pickings, 25s. 6d. to 12s.; pale to common grains and siftings, 30s. to 13s. per cwt. *Ghatti*: good to fine picked drop, 40s. to 50s.; common brown ditto, 20s. 6d.; pickings, 13s. per cwt. *Aden*: common to ordinary dusty sorts, 16s. to 22s. per cwt. *Cape*: small palish ambery soft sorts, 50s. per cwt. *Australian*: fair frosted red drop, 27s. per cwt. *Egyptian Amrad*: common dusty siftings, 13s. 6d. per cwt. *Persian*: bright but insoluble drop, 20s. per cwt.

GUM ASAFOETIDA.—Fine quality is exceedingly scarce and would bring high prices. Arrivals to the extent of 118 cases from Bombay and the Persian Gulf have just taken place, but they do not include any really good gum, about 40 cases being fair hard almond and the rest of inferior quality.

GUM OLIBANUM.—At auction to-day 986 packages were offered, of which 289 sold at fairly steady prices for drop,



but at a slight decline for garblings; selected tear brought from 53s. to 59s.; pale bean size, 30s.; fair palish drop, 27s. to 30s.; good to woody garblings from 18s. 6d. down to 11s.; and ditto siftings from 13s. 6d. to 11s. 6d. per cwt.

INDIGO.—East Indian indigo is in good demand privately, and slightly higher rates have lately been paid.

JABORANDI-LEAVES.—Good leaves are exceedingly scarce; the last price mentioned was 9d. to 10d. per lb., but it is doubtful whether there are any to be had at that figure now.

JALAP.—Good Vera Crnz jalap is being offered at 1s. 5d. per lb. c.i.f. terms.

LIME JUICE.—Scarce and dearer; 1s. 6d. per gallon has been paid for good quality, but there is no more offering at that figure now.

OIL (COD-LIVER).—The advance has made no further progress. Some holders continue to ask 85s., others offer fine new non-congealing oil at 75s. per barrel, both on the spot and for autumn delivery.

OPIMUM.—Some business is reported this week in ordinary soft shipping, as well as in manufacturing opium, but in the better kinds the market remains almost lifeless. The following are the present quotations: Fair to fine soft shipping, 8s. to 11s. 6d.; good to fine Smyrna, 7s. to 7s. 6d.; second druggists' kinds, 6s. 6d. to 7s.; Persian, 7s. to 9s. 6d. per lb. For Salonica opium from 10s. 6d. to 11s. 6d. per lb. is asked, but no business can be done at that figure. Our Smyrna correspondent writes under date of April 10:—"We do not think that any further business will be done in opium until the Easter holidays are over, as our examiners are Jews, and from next Thursday until the following Tuesday will not attend to business. Should the weather continue favorable we may see a further decline of a penny or two on our quotations before the end of the month, after which prices will remain stationary until the result of the growing crop is ascertained."

QUICKSILVER.—On Tuesday the first-hand price was reduced from 7l. to 6l. 15s. per bottle. Second-hand holders now offer at 6l. 13s. *Mercurials* have undergone no change in price.

QUILLAIA is easier here, and offers at 22l per ton, c.i.f. terms.

QUININE.—The market is exceedingly flat, and there are sellers of German brands in bulk (second-hand) at 9½d. per oz. The imports of quinine and other cinchona salts into the United States during the eight months ending February 29, 1892, were 1,564,473 oz., against 2,219,739 oz. in the corresponding period of 1890-91. On the other hand, there has been a small increase in the quantity of quinine bark imported during the same period, the figures being:—1881-92, 1,939,865 lbs.; 1890-91, 1,897,242 lbs.

SHELLAC.—Just before the commencement of the holidays the market became firmer, both on the spot and for delivery, and a fair amount of business was transacted. For *Orange TN*, August delivery, 74s. 6d. to 74s. 9d. per cwt. was paid. Since the re-opening of the markets, however, great quietness has reigned, and there are now sellers of August *TN* orange at 74s. per cwt. One hundred cases *TN* for May delivery are said to have been sold at 74s. per cwt.

SODA CRYSTALS.—The London makers' price is 70s., while on the Tyne the quotation is 65s.

SULPHUR.—Foreign flowers are now offering at 8s., roll at 7s. 3d., while for best thirds the quotation is 92s. 6d., c.i.f. terms.

TEA.—With the exception of a sale of a few odd lots on Thursday, there have been no auctions this week of either China, Assam, or Ceylon tea; consequently, there is no quotable change to be reported in the market. Buyers are all overfull of tea at the present low rates, and a cessation of sales for a time is therefore a distinct relief. The present range of prices is altogether too low, and a speculator who had the courage of his opinions, and was prepared to lock up low Capers and Assams, and possibly also low Ceylons, for six months, would probably do well. Rumours of dissolutions and changes in old-established firms, however, do not tend to encourage outsiders to try their luck in the market.

## THE LIVERPOOL MARKET.

As is always the case in the Easter-holiday week, a quiet tone rules in all branches of trade here.

ASPHALTUM.—Some particularly fine Syrian has realised the high price of 75s., at which the balance of the parcel is held.

BALSAM (COPAIBA).—More inquiry for *Maranham*, and considerable sales at late rates.

CALABAR BEANS.—2½d. was the only bid for a parcel at auction, but the lot was withdrawn.

CHILLIES continue to find ready buyers at recent values. Fltty shillings is asked for fine bright red *Sierra Leone*; 40s. to 45s. has been paid for mixed red and brown. Ordinary Niger description has sold at 20s.

COLOCYNTH.—Six cases fine apple have been sold at 10d.; broken and brown held at 7d.

CREAM OF TARTAR.—Still quiet, and 90s. is the value of first white crystal.

GINGER.—*African* ginger is now easier, in consequence of recent arrivals, and 28s. has been taken for good new quality.

QUILLAIA.—There is a firmer tone, and holders seem disposed to ask more money; 23½ is the value of thin, clean bark.

WAX (BEES')—There have been small arrivals of *Chilian*, and 7l. 5s. to 8l. is asked and paid for gray to fine yellow.

## THE AMSTERDAM MARKET.

AMSTERDAM, April 15.

THE cinchona auctions to be held in Amsterdam on May 5, 1892, will consist of 217 cases and 3,706 bales, about 333 tons, divided as follows:—From Government plantations, 36 cases and 271 bales, about 23 tons; from private plantations, 181 cases and 3,435 bales, about 310 tons. This quantity contains, of *Druggists' bark*: *Saccirubra* quills, 115 cases; broken quills and chips, 155 bales; root, 3 cases, 35 bales. *Manufacturing bark*: Hybrid broken quills and chips, 350 bales; root, 92 bales. *Ledgeriana* quills, 75 cases; broken quills and chips, 24 cases, 2,395 bales; root, 632 bales. *Officialis* broken quills and chips, 47 bales.

## THE COD-FISHING SEASON IN NORWAY.

(From our Norway Correspondent.)

OWING to the entire failure of the fishing in the eastern districts of Lofoten the quantity of medicinal oil produced in those islands is the smallest which has been obtained for many years past. The following figures show the statistics of medicinal oil produced in Lofoten during the last six years:—

	Hectolitres.
From the opening of the season to April 11, 1887,	9,491
" " " " 14, 1888,	16,103
" " " " 13, 1889,	12,780
" " " " 12, 1890,	16,633
" " " " 11, 1891,	17,900
" " " " 9, 1892,	7,640

Under these circumstances prices appear bound to move up. The present value is from 75s. to 77s., c.i.f. U.K. east coast, for finest non-congealing new season's oil, but it is expected that 80s. will be considered a cheap price ere long. Should the fishing in Finmarken be successful this season, then some medicinal oil may be produced there; but as Finmarken never turns out any large quantity of really good oil its production cannot affect the price to any extent.

The Lofoten fishing is now drawing to a close, most of the boats having left for Finmarken. Not one-third of the number remain behind to-day (April 9), and in another week it will be over. It is not expected that more than a few hundred hectolitres of oil will be produced during the remainder of the season, and the total quantity will hardly be over 8,000 hectolitres, as far as Lofoten is concerned.



## THE CROP OF JAVA CINCHONA

(COMPILED FROM STATISTICS OBTAINED BY A COMMISSION FROM THE SOEKABOEMI AGRICULTURAL ASSOCIATION, JAVA).

Plantation	Estimated Crop for 1892, if Unit Remains Low			Estimated Crop for 1892, if Unit Advances			Output in 1891		
	Kilos. Bark	Percentage Quinine Sulphate	Kilos. Quinine Sulphate	Kilos. Bark	Percentage Quinine Sulphate	Kilos. Quinine Sulphate	Kilos. Bark	Percentage Quinine Sulphate	Kilos. Quinine Sulphate
Pondok Gedeh .. ..	15,000	4	600	15,000	4	600	3,827	4	153
Tjitrap .. ..	10,000	5	500	10,000	5	500	12,000	4	480
Ardjasari .. ..	30,000	3.50	1,050	30,000	3.50	1,050	28,938	3	868.1
Boemikasso .. ..	10,000	4	400	35,000	3.40	1,190	5,700	3	171
Djajagiri .. ..	25,000	5.50	1,375	25,000	5.50	1,375	28,000	5.50	1,540
Gamboeng .. ..	80,000	6.50	5,200	100,000	6.50	6,500	65,000	6.20	4,030
Goenoeng Kasoer .. ..	10,000	4	400	10,000	4	400	3,000	3.75	112.5
Indragiri .. ..	60,000	4.75	2,850	40,000	4.75	1,900	42,500	4.50	1,912.5
Kertamanah .. ..	150,000	4.40	6,600	150,000	4.50	6,750	150,000	4.40	6,600
Passir Malang .. ..	95,000	4.50	4,275	95,000	4.50	4,275	10,000	4.50	3,600
Paal Lima .. ..	40,000	4	1,600	40,000	4	1,600	52,332	4	2,093.2
Rantjwallini .. ..	40,000	4	1,600	40,000	4	1,600	32,932	4	1,317.2
Soekatinggi .. ..	35,000	6	2,100	35,000	6	2,100	28,000	6	1,560
Soekawana .. ..	68,000	4.50	3,060	68,000	4.50	3,060	68,000	4.50	3,060
Tjikapoendoeng .. ..	28,000	4.50	1,260	28,000	4.50	1,260	28,000	4.50	1,260
Titilaki .. ..	30,000	6	1,800	30,000	6	1,800	31,000	6	1,860
Telaga Patengan .. ..	50,000	4.50	2,250	70,000	3.50	2,450	64,000	4.50	2,880
Tikahoeripan .. ..	40,000	3.50	1,400	41,000	3.50	1,435	30,000	3	900
Tjipopohan .. ..	11,000	3.63	399.3	7,000	3.42	239.4	26,200	2.74	717.8
Government plantations ..	200,000	5	10,000	200,000	5	10,000	200,000	5	10,000
Djajasana .. ..	20,000	4	800	22,500	4	900	15,000	3	450
Girilawas .. ..	25,000	4.50	1,125	25,000	4.50	1,125	89,106	4	3,920.4
Gentoeng .. ..	45,000	4.50	2,025	45,000	4.50	2,025	47,350	4	1,895.6
Tjampaka warna .. ..	16,587	4.50	746.4	25,000	4	1,000	16,587	4	663.4
Tjigentoer .. ..	20,000	4	800	20,000	4	800	61,000	4.50	2,745
Tikenbar .. ..	15,125	5	756	25,000	5	1,250	15,000	5	750
Tjisaroeni .. ..	125,000	3	3,750	125,000	3	3,750	15,500	3	465
Djajanegara .. ..	25,000	3	750	25,000	3	750	22,500	3	675
Goenoeng Malang .. ..	15,000	3	450	15,000	3	450	15,000	3	450
Pandan-Aroem .. ..	75,000	4	3,000	75,000	4	3,000	110,000	4	4,400
Pasir Telagawarna .. ..	37,000	4.50	1,665	50,000	4.50	2,250	45,000	4	1,800
Sindang Sari .. ..	16,218	6	973	16,218	6	973	16,218	6	973
Slabintanah .. ..	20,000	3	600	20,000	3	600	8,000	2.75	220
Tjakraboewana .. ..	40,000	4	1,600	45,000	4	1,800	45,000	3	1,350
Bajabang .. ..	25,000	5	1,250	25,000	5	1,250	—	—	—
Goenoeng Besar .. ..	12,500	4.50	562.5	12,500	4.50	562.5	20,000	4.50	900
Goenoeng Melati .. ..	100,000	4.75	4,750	100,000	4.75	4,750	100,000	4.75	4,750
Panjairan .. ..	100,000	4.50	4,500	100,000	4.50	4,500	114,517	4.35	4,981.4
Tjigentoer .. ..	20,000	4	800	20,000	4	800	—	—	—
Pondok Bitoeng .. ..	30,000	3.80	1,140	30,000	3.80	1,140	45,300	3.80	1,721.4
Siekanegara .. ..	115,000	4.25	4,887	130,000	4.25	5,525	10,000	4.37	5,681
Tjidadap .. ..	40,000	3.50	1,400	75,000	4	3,000	110,000	3.50	3,850
Tjampaka Noord .. ..	35,000	4.50	1,575	35,000	4.50	1,575	34,000	4.15	1,402.5
Tjidcerlan .. ..	125,000	3	3,750	125,000	3	3,750	15,000	3	450
Tjimonleh .. ..	40,000	3.50	1,400	40,000	3.50	1,400	75,522	3.50	2,643.2
Tjitiis .. ..	85,000	4	3,400	95,000	4	3,800	95,000	4	3,840
Tjiwangi .. ..	20,000	5	1,000	20,000	5	1,000	50,000	4	2,000
Tjiseureoh .. ..	100,000	3.50	3,500	100,000	3.50	3,500	100,000	3.50	3,500
Tjipantjoe .. ..	50,000	4.50	2,250	50,000	4.50	2,250	50,000	4.50	2,250
Argasari .. ..	50,000	3.25	1,625	50,000	3.25	1,625	52,000	3	1,560
Daradjah I & II .. ..	45,000	4.50	2,025	45,000	4.50	2,025	30,315	4.2	1,273.2
Lodaja .. ..	90,000	4	3,600	90,000	4	3,600	105,000	4.2	4,326
Tjikembang .. ..	40,000	3.75	1,500	40,000	3.75	1,500	40,000	3.75	1,500
Tanah Goba .. ..	20,000	2.75	550	20,000	2.75	550	50,000	2.75	1,375
Tedja .. ..	10,000	3.50	350	10,000	3.50	350	28,613	3.50	1,002
Pagilaran .. ..	100,000	5.50	5,500	200,000	5.50	11,000	135,000	5	6,750
Kajoe Abang .. ..	37,000	4	1,480	37,000	4	1,480	10,200	3.97	404.3
Maatschappij "Bagelen" ..	75,000	5	3,750	75,000	5	3,750	70,000	4.50	3,150.1
Langenardjo .. ..	40,000	5	2,000	40,000	5	2,000	51,000	4	2,040
Tarik .. ..	21,500	5.50	1,182.5	21,500	5.50	1,182.5	4,332	3.82	165.4
Petoeng Sewoe .. ..	21,500	5.5	1,182.5	21,500	5.5	1,182.5	—	—	—
Soember-Seh .. ..	15,000	4	600	22,500	5	1,125	—	—	—
Bendo .. ..	50,000	4.50	2,250	50,000	4.50	2,250	—	—	—
Djoengo .. ..	10,000	4	400	10,000	4	400	53,000	4.50	2,610
Fourteen plantations yielding less than 300 kilos. quinine each .. ..	73,396	—	2,211.4	87,396	—	2,649.1	120,838	—	3,503.1
Total .. ..	3,117,701	—	134,154	3,512,114	—	152,169	3,479,883	—	144,570

LIQUID PARAFFIN is an admirable solvent for camphor, and the solution has the advantage over the usual camphorated oil of becoming perfectly limpid with a little heat.

GERANIUM OIL is now largely adulterated with fatty oils. The fraud can be detected by the behaviour of the sample with dilute spirit. Pure geranium oil dissolves in 2-3 vols. of spirit of 70 per cent. at 20°. If small quantities of fat are present the mixture is dull, or, in case of larger quantities, milky.

IN YORKSHIRE WOOL-MILLS 12,000 tons of wool-grease is recovered annually. There should be no fear of the supply of *Adeps lanae* running short.

AROMATIC CASTOR OIL.—According to Dr. Standke, who writes in a German medical paper, the taste of castor oil can be entirely concealed by adding to the best oil as much saccharin as will give it a taste like syrup, then add a sufficiency of oil of cinnamon and a trace of vanilla to give it a flavour.





### Memoranda for Correspondents.

*Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinct, or nom-de-plume.*

*Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.*

*If you send us newspapers, please mark what you wish us to read.*

*Ask us anything of pharmaceutical interest: we shall do our best to reply.*

*Before writing for formulae consult the last volume, if you have it.*

*Letters, queries &c., will be attended to in the order received.*

### The Enforcement of the Pharmacy Act.

SIR,—I am glad to see that the Pharmaceutical Society are putting the Act in force at last. It is the best plan they could adopt if they wish to increase the membership.

Yours truly,  
H. H. (13/43.)

SIR,—As a qualified chemist, and one of the younger members of the craft, I would like to re-echo the statement in your editorial comments of April 16, in which you state that "the Pharmaceutical Society has seldom done a better day's work than it performed on Wednesday." I hope the Society will continue the work, showing to the public and chemists alike that the Pharmacy Act is not a dead letter.

Yours very truly,  
JERRY. (14/24)

SIR,—It is very satisfactory to see that the Pharmaceutical Council are stirring themselves to check the sale of poisons by persons without the necessary qualification. There is no doubt the law is being violated daily throughout the land, even under the very noses of the various local secretaries—a state of things which could not exist in any other European country. It appears to me the Society should appoint some of its officers to methodically visit the different centres in order to subdue the infringements, which appear to be increasing, and I doubt whether drug stores, &c., owned or conducted by non-registered men should be allowed to display in their windows the usual coloured carboys and specie-jars (old chemists' symbols) which must be misleading to the public.

Yours, &c.,  
April 19. E. V. Z. (14/61.)

### The Medicine-stamp Act.

SIR,—I see in your issue of April 14 the announcement that Messrs. Mawson, Swan & Weddell intend publishing an article on the effect of the Medicine-stamp Act, &c., and invite correspondence from chemists. Perhaps it would serve a useful purpose if the subject had an airing in your valuable journal beforehand.

The root of most of the evils that have befallen the chemist of late years is to be found in the working of this Act. Shielded by his 5s. licence and armed with his 1½d. stamp, the quack, grocer, herbalist, or any other of those who prey on our business, can set at naught the Pharmacy Act and those who seek to enforce it. He can prescribe, dispense, and sell, and no one can touch him. The experienced but unqualified man is fined 5l. for selling a pennyworth of landanum, and the fully-qualified chemist gets publicly censured for selling a rather larger quantity of the same drug, through an error in judgment, which was unfortunately put to an improper purpose—an experience which might overtake any one of us. But the privateer can sell gallons of a similar preparation with impunity under cover of his almighty stamp, if he is only careful in drawing up his label.

Whilst the Act, as at present constituted, is in force, the

Pharmacy Act is powerless to protect the interests of the trade beyond making scapegoats of a few individuals. At the same time, the manner in which the Medicine Act Stamp is administered hinders the chemist in conducting his business, as medicines which it is necessary for him to keep ready for sale, but which are not specially recommended for any particular purpose, frequently come within the meaning of the Act, as interpreted by the Board of Inland Revenue, owing to the wording of the label. Of course, there are ways of avoiding this, with care, but it generally means stamping the article for protection, or spoiling the label, and so rendering it unsaleable. Still, I would rather advocate the reconstruction of the Act than its abolition, and I think the first amendment should provide that proprietors and sellers of patents should no longer be permitted to evade the Pharmacy Act, under the protection of the medicine stamp, but that patent medicines should be dispensed by qualified men, the same as any others, and that those containing poisons should only be sold by persons registered under the Act for the sale of such poisons; also that if the poison is in large quantity there should be some caution to the public on the label. This would not necessitate the proprietor divulging his private formula; he would merely have to declare on his wrapper that the regulations were complied with, and that his article came under such-and-such section of the Act. The analyst could try suspected medicines from time to time.

Another amendment which would be of immense value to the retail chemist should exempt from stamp duty all preparations sold only over his own counter, and in no way advertised, exposure in his own window not being considered an advertisement. This would do away with the vexatious prosecutions to which chemists are occasionally subjected, and the Board of Inland Revenue would suffer little loss. They would not be put to so much expense in sending out informers, &c., and any chemist finding a proprietary meet with a ready sale would be almost sure to advertise and push it, when it would require the stamp as usual. Besides, should there be some slight loss to the revenue, I think the majority of chemists would be in favour of increasing the amount paid for the licence to make up the deficiency. There is a precedent for such a course and purpose: the Excise permit a person to keep and use a gun for the destruction of small birds and ground game on the land he occupies, without a licence; but he becomes liable directly he fires a shot off his premises.

Yours truly,  
BECKENHAM. (15/67.)

### A Misleading Nom-de-Plume.

WE are asked to state that the two letters lately published in this journal over the nom-de-plume "W. I. Lim." were not written from the establishment of Messrs. William Inman & Co. (Limited), Edinburgh, nor were they, we may add, sent to us from Scotland.

### LEGAL QUERIES.

*Consult Alpe's "Handy-book of Medicine-stamp Duty" in regard to patent medicine questions.*

*General information regarding the laws affecting chemists and druggists is printed in THE CHEMISTS' AND DRUGGISTS' DIARY, 1892, pp. 161-5.*

*For stamp duties, licences, Customs regulations, &c., see the DIARY pp. 151-9.*

12/25. Dolor writes:—"On Friday last a gentleman called upon me, stating that he came from Somerset House and wished to inspect my tinctures, liniments, &c., with a view to ascertaining their freedom or otherwise from methylated spirit. He said he could show me his authority if I wished, but I did not trouble him for this. Can you inform me under what regulations these proceedings are taken, and whether these gentlemen have the right to search one's premises without a magistrate's warrant, and should I have been in my rights to have refused him permission to inspect?"

[Your visitor had no authority to make a compulsory inspection of your tinctures and liniments, but, as you are probably aware, the use of methylated spirit in the manu-



facture of medicine is prohibited under a penalty of 100*l.*, and no doubt the visit was made in the ordinary course of business to ascertain whether methylated spirit had been so used. The same object might, and probably would, have been attained by purchasing samples for analysis.]

12/30. *Enquirer*.—It is established law that a duly registered limited liability company may keep open shop for the sale of poisons, and may use the designation "chemist and druggist" even though none of its shareholders are qualified; but any unqualified assistant, manager, or shareholder selling a scheduled poison in such shop renders himself personally liable to the penalty of 5*l.* prescribed by the 15th section of the Pharmacy Act.

12/59. *Caledonia*.—See Editorial note.

7/39. *Omega*.—See Editorial note.

15/10. *J. B.*—The widow, being the executrix, can as such carry on the business of her deceased husband with the aid of a qualified manager.

3/17. *Squib*.—The only D.D.S. degree registrable under the Dentists Act is that of the University of Michigan. The D.D.M. of Harvard University is also registrable. We cannot give any information about a D.D.S. obtainable *in absentia*. There appears to be nothing to prevent any registered dentist describing himself as "dental surgeon."

#### MISCELLANEOUS INQUIRIES.

*Inquirers will please read the "Memoranda for Correspondents."*

A list of "Books for Chemists" is given in THE CHEMISTS' AND DRUGGISTS' DIARY, p. 317.

For all particulars regarding Educational and Examinational matters refer to our issue of September 19, 1891.

Replies to queries are inserted according to the space open in any week, and insertion on any specific date cannot be guaranteed.

Back numbers of our weekly issue, containing formulae, &c., occasionally referred to in answers, can be obtained from the Publisher at 4*d.* each.

7/68. *Anglaise*.—An outline of the curriculum for the French pharmacist's diploma is given in our last Educational number (September 19, 1891).

14/41. *J. P. C.*—The New York State Board of Pharmacy does not professedly accept the British qualification in lieu of its own, but we believe the certificate is generally taken as sufficient evidence of competence, and only a formal examination and the payment of fees are required.

258/26. *Tar distiller*.—The Horso-powders have the following approximate composition:—

No. 1. Black sulphur, 4 oz.; nitre, 3 oz.; fennugreek 1 oz.

No. 2. Resin and nitre, equal parts; coloured with red sanders-wood.

No. 3. Alum, 3 parts; chlorate of potash, 1 part; coloured with indigo.

14/3. *G. D. C.*—See the books on the subject given in the DIARY. Hereditary baldness is incurable.

18/20. *Soda Bicarb.* sends us half-a-dozen of Children's Powders which appear to be popular in Leeds "for infants teething, and for curling fits, fevers, convulsions, diarrhoea, and all the complaints of children. They cool the blood and allay all swelling and soreness in the gums." The directions are: "1 year old, one powder; 3 years old, two powders; to be given, alone, three or four times a day." These are pink powders; each weighs 2 grains, half a grain of which

is calomel, and the rest sugar, with sufficient carmine to tint.

30/76. *C. D.*—(1) Your request was received too late for reply last week, but please note the paragraphs at the head of this section. The "Finings" do not contain albumen—simply isinglass in a mixture of equal parts of sulphurous acid and water. (2) The lime or magnesia process for making Soluble Essence of Ginger is the simplest. Mix the strong essence with its own volume of water and add slaked lime in the proportion of three drachms to the pint. Shake occasionally for a day, decant, add a few drops of dilute sulphuric acid to precipitate lime, and, after a few hours, filter. We prefer the magnesia method—half an ounce of light carbonate of magnesia to the pint, and two or three days' contact. All this has been fully explained in this journal already.

1/13. *Victor*.—Both the Rat-poisons which you send are mixtures of arsenic with flour and a little bran.

5/49. *Sarmentum* asks our advice from his solitude in China. His questions are: (1) "What is the most convenient way of Generating  $H_2S$  for private work? I find this the most troublesome reagent. I have tried the apparatus consisting of a 1-oz. female glass syringe containing pieces of iron sulphide and inserted into a bottle containing acid sulph. dil. This works very well when fresh, but I find that on lifting the tube out of the acid when not in use the sulphide readily oxidises, and there is some difficulty in getting it to work again; then I tried heating sulphur with an excess of hard paraffin in a test-tube—this also acts for a time, but the sulphur ultimately sublimes in the rubber tube and causes the test-tube to burst. My desire is to be able to generate the gas with as small a quantity as possible escaping into the room." [The same objection applies to nearly all the methods for obtaining sulphuretted hydrogen from ferrous sulphide. If allowed to stand long not in use the sulphide acquires a coating of oxy-sulphate which has to be dissolved off before any gas can be obtained. Our experience is that when the gas is wanted at comparatively long intervals an apparatus such as "Sarmentum's" is as good as any; but when done with, clean it out thoroughly, put in a fresh supply of dilute acid (1 in 5), and leave it ready to put in the ferrous sulphide when next needed. If the bottle of the sulphide (which should be in pieces from 2 to 5 grains in weight) is kept beside the generator no difficulty ever arises. To get rid of the odour of the gas burn a little sulphur in the room. This may be done simultaneously.] (2) "Is there any way of removing the fluorescence often seen on white glass bottles?" [No; it is due to the annealing process.] (3) "Is there a ready method of finding out if the glass of a bottle or vessel contains lead, or is it to be taken for granted that all glass other than the colourless is free, or nearly so, from it?" [White flint glass is the only common bottle-glass which contains lead, but it must not be assumed that all white glass is plumbiferous, as Bohemian glass is a potash-lime glass. There are few of the coloured glasses which can be made with lead glass; red is an exception, but green and blue bottle-glasses are free from lead. There is no quick way of testing for lead. The action of alkali solutions is, of course, well known, and may be taken advantage of.] (4) "How many drops per pint is considered necessary to produce Aromatic Waters from essential oils by filtration through kaolin, &c., so as to equal the distilled as near as possible, more especially caraway, cinnamon, dill, peppermint, and rose waters?" [One drop of each to the ounce. The water cannot take up more, and, in fact, less is required, kaolin, magnesia, and similar substances simply absorbing surplus oil.] (5) Use Scheele's prussic acid for Poisoning Dogs, and see that the animals have not been recently fed. The trouble in this department of pharmacy is that the dispenser or operator unconsciously carries out the fear of giving too much.

3/50. *Amicus*.—(1) Bad teeth are injurious to health, chiefly on account of the food being improperly masticated by them. (2) Smoking and drinking spirits in excess open



the door to all sorts of bodily disorders, indigestion being well ahead of most of them. (3) Consult a medical man, or Dr. Herschell's book on indigestion.

11/49. *Fizz*.—We cannot give you practical information on the mineral-water manufacture in the space of a paragraph, but would recommend you to consult the advertisers of machinery that you will find in this journal and DIARY. They will advise you in the most satisfactory manner.

12/46. *Yorkshireman*.—The advertisement you refer to did not appear in this journal. We must therefore decline to publish your complaint concerning it.

13/12. *Dixon*.—To Sensitise Albumenised Paper—Place the paper in a damp atmosphere before sensitising, and make up a bath of nitrate of silver of the strength of 60 grains to the ounce of distilled water. The quantity of solution to sensitise a sheet of paper varies, but the bath on which the paper is floated should cover the bottom of the dish to a depth of  $\frac{1}{4}$  inch. The sensitising bath becomes weaker after floating each sheet; it is therefore well to have in reserve a stock solution of 120 grains of nitrate of silver to the ounce of distilled water. When using the 60-grain bath, and after floating each sheet of paper, add 5ij. of the stock, or 120-grain, solution. To prevent the bath becoming acid add a few drops of a solution of carbonate of soda until it produces a slight precipitate. If the bath becomes discoloured or loaded with organic matter, dissolved off the albumenised paper, add a little more carbonate of soda, then pour the bath into a white glass bottle and place in a bright light, when it will quickly clear itself and the organic matter will be deposited in the form of a black precipitate. The bath should, before use, be carefully decanted. The operation of floating the paper requires considerable care. As stated above, it must not be very dry. The paper must be allowed to float from two and a half to three minutes, and must be drawn on to the bath carefully in order that the whole of the sheet may come in contact. It also requires care in drawing off over the edge of the bath so that no air-bubbles are formed, and to allow as much solution as possible to drain off. The sheet of paper should be hung up to dry by the corners or hung over laths or rods of wood, with, of course, the sensitised side exposed. When surface-dry it may be rolled on a roller with chemically pure blotting between each sheet. Sensitised albumenised paper will not keep more than some three weeks.

*J. A. J.* (10/28), *Quinine* (13/70), *Ceratum* (14/43).—We have inquiries signed as above, but otherwise anonymous. If the writers wish for replies they must give us their correct names as well as their noms de plume, and repeat their questions.

12/3. *J. D.*—Paris Green is arseniate of copper.

12/1. *Moor*.—A suitable Covering for Corks, which will withstand the heat and damp of the Indian climate, is the gelatine mixture with less glycerine than usual. Try the following:—

Gelatine ..	..	..	..	..	..	7 lbs.
Glycerine ..	..	..	..	..	..	6 oz.
Water ..	..	..	..	..	..	60 oz.

Macerate the gelatine in the water until soft, then add the glycerine, and heat until uniform. Colour with solution of magenta.

When required melt 1 lb of this mass on a water-bath, and add to it 40 grains of bichromate of potash dissolved in 1 oz. of water, and mix well. If less than a pound of the mass is to be used, proportionately less of the bichromate should be added, as it has the effect of hardening the mass on keeping, without making it brittle.

12/20. *A. B.*—Frequent syringing of plants with tobacco infusion is the best thing for getting rid of Green Fly.

12/52. *Vic*.—The principal makers of aerated-water apparatus supply books of instructions upon which you can rely. See also page 317 of the DIARY.

13/68. *J. B.*—We have no information on the subject, never having examined the powders.

13/71. *G. D. C.*—To make Lemonade by Seltzogene put a tablespoonful of lemon syrup in the tumbler, and fill up with the aerated water.

14/69. *Harness*.—See *C. & D.*, January 23, page 124, for formula for harness-blackening.

14/68. *Vaseline*—Poultry Spice.—The following is said to be of assistance to the hens during the laying season:—

	Oz.
Mustard ..	20
Fenugreek ..	15
Ground oyster-shells ..	12
„ bones ..	8
Sulphate of soda ..	4
Cayenne pepper ..	10
Black antimony ..	10
Peroxide of iron ..	10
Corn flour ..	20
Asafetida ..	1

All in powder and mixed.

A teaspoonful in the food for a dozen hens.

This mixture may be used as a condition-powder for poultry generally, especially when they are out of sorts.

15/5. *Opodeldoc*.—Soap Liniment made with hard white bar soap generally becomes gelatinous. You see, that soap is not olive-oil soap, but is made with tallow, a little resin, and a trifle of alkaline silicate, and we must not be surprised to find the solution turn out differently from one of a soap made with olive oil and soda. If you wish a cheap liniment you should try common soft soap. It gives better results and a liniment with excellent body for friction.

14/58. *W. G. J.*—Use pale copal varnish for the boxes, and allow to dry before sticking on the labels. Tragacanth paste is the best adhesive agent.

15/12. *Wadlo*.—(1) 1l. a month is the charge for hire of water-bed, with a minimum of 10s. (2) Violet-powder is used for powdering the hair.

#### Information Wanted.

Replies to the following are requested for insertion in THE CHEMIST AND DRUGGIST.

12/16. The composition of Warwickshire stain for leather; to make new leather look as if it had been used.

14/63. Makers of tins for 1d. pomades.

THE first bit of literary work that Carlyle ever did for money was to translate a MS. paper by Brezelius, which was communicated through Professor David Brewster to the Royal Society of Edinburgh. Carlyle was a youth at the time, but sufficiently expressive in diction to tell his brother about Brezelius's execrable handwriting.

FALSE ANGOSTURA-BARK, obtained apparently from *Strychnos*, has yielded to Mr. W. J. Smythe's analysis 6.1 per cent. of total alkaloids (*Amer. Jour. Phar.*, March, p. 115). These he found to be brucine mainly and a mere trace of strychnine, the latter determined after difficulty but sufficiently conclusively to corroborate Mr. W. A. Shenstone's observations in 1877.



20 HIGHEST AWARDS.

# Pears' Soap

Soap Makers  
by Appointment to



H.R.H.  
The Prince of Wales.

RETAIL PRICES.			Per Dozen.	WHOLESALE PRICES.
	6d.	SIZE, unscented	- - -	4s.
	1s.	„ all shapes, Washing or Shaving		8s.
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	2s. 6d.	„ (The Washing Tablets are perfumed with Otto of Roses)		20s.
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	TRANSPARENT GLYCERINE	2s. per Box of 3 Tablets	16s.	Per dozen Boxes.

## DISCOUNT of 20 per Cent.

### On all ORDERS of NOT LESS than £5.

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### Special NET CASH List.

*In Ten Gross and One Pound Tins for CASH WITH ORDER.*

		Per gross.	Per lb.
Pil. Aloes et Ferri, P.B. ...	...	6d.	4/-
„ Colocynth. Co., P.B. ...	...	11d.	8/-
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„ Rhæi Co., P.B. ...	...	6d.	4 3
<b>APERIENT.</b> 105 (Each Pill contains $\frac{1}{3}$ gr. of Calomel) ...	...	6d.	4/3
106 As No. 105, with 1 gr. Calomel in each Pill ...	...	8d.	4/6
107 As No. 105, without Calomel ...	...	6d.	4/3
110 Hospital Pills, each containing $\frac{1}{2}$ gr. of Calomel ...	...	6d.	4/6
<b>ANTIBILIOUS.</b>			
62 Hydrarg. Pil. gr. i; Ext. Coloc. Co.; Pil. Rhei Co. aa. gr. ij. ...	...	1/-	8/6
262 Podophyllin gr. $\frac{1}{2}$ ; Ext. Coloc. Co. gr. ij.; Ext. Hyoscy. gr. i. ...	...	1/2	10/-
<b>COUGH.</b>			
164 Pulv. Ipecac. Co.; Pulv. Gum. Ammon. aa. gr. iss.; Pulv. Scillæ gr. i.; Saponis Hispan. gr. ss. ...	...	7d.	5/-
167 Pulv. Ipecac.; Pulv. Scillæ aa. gr. $\frac{3}{4}$ ; Pulv. Capsici; Pulv. Opii aa. gr. $\frac{1}{4}$ ; Pulv. Gum. Ammon.; Ext. Colit aa. gr. i. ...	...	8d.	5/6
<b>CASTOR OIL.</b>			
289 Rhei Pulv.; Potass. Sulph. aa. gr. iss.; Pulv. Sapo. Hesp.; Ol. Ricini aa. gr. ss.; Ol. Crotonis gr. $\frac{1}{10}$ ...	...	6d.	4/-
<b>TONIC.</b> 370 (Bland's Formula) ...	...	6d.	4/-
371 (Bland's Formula, Martindale's improved) ...	...	6d.	4/-
<b>"LITTLE" APERIENT.</b> 458 ...	...	5d.	20/-
<b>"LITTLE" ANTIBILIOUS.</b> 462 ...	...	5d.	20/-

Samples of the above with our Complete List sent on application.

In ordering, please note Address, and see that the Label on each Bottle or Tin corresponds with the above Block. [1]



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## CYGNET BRAND EUCALYPTUS OIL,

Distilled from the leaves of *Eucalyptus CNEORISOLIA*, formerly considered a sub-variety of *E. Oleosa*, but now classed as a distinct variety.

The Trade are invited to test this carefully prepared Oil, which since its recent introduction from Australia has won the unqualified approval of the leading British, American, and Continental Authorities.

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IT IS MORE LIKE A SYRUP THAN AN OIL,

And is readily taken by children and other persons to whom the ordinary Oil is so repugnant.

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It possesses the full Cathartic Properties of ordinary Castor oil. Its objectionable taste is entirely removed by the method of treatment, and the addition of innocuous aromatic ingredients is so minute that the Purity of the Oil is in no way affected. Experts here who had the Oil presented to them entirely failed to recognise it as Castor Oil.

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1-lb. Bottles ..	2/8 per lb. net.	40-lb. Tins ..	2/2 per lb. net.
Winchesters ..	2/6 " "	Case of four 40-lb. Tins ..	2/- " "

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Obtained by the action of Metallic Zinc on Chloroform and Alcohol.  
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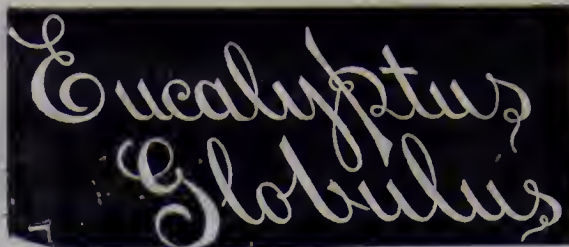
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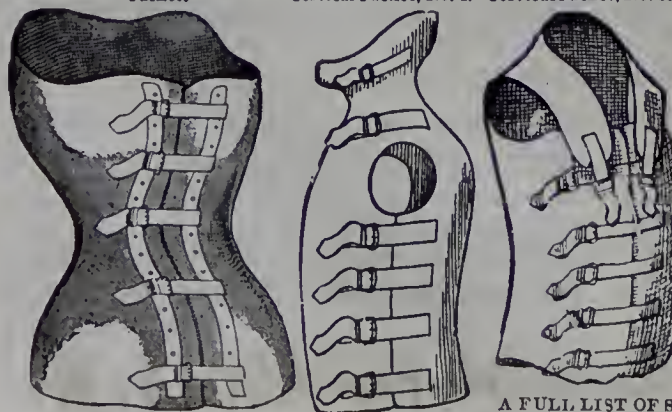
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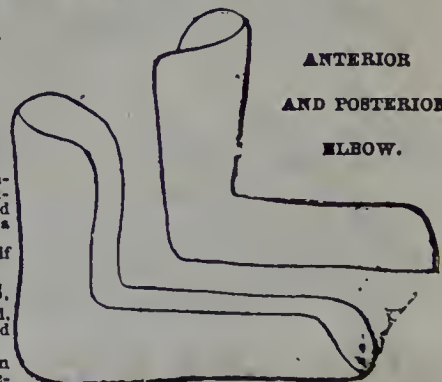


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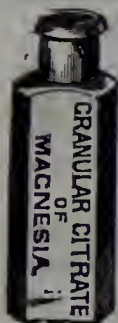
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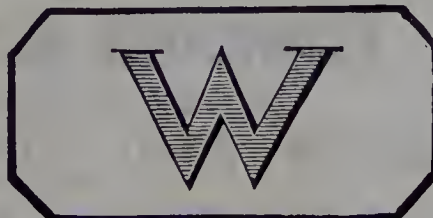
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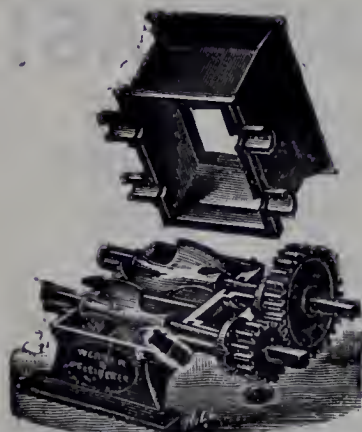
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Manufacturers of **PLASTERS** of every Description.

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(In boxes of 80 Plasters, 36/ per dozen.)

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In 5-yard rolls, 12 inches wide, 5/ each.

In 1-yard rolls, 7 inches wide, 14/ per dozen.

10-YARD SPOOLS—	Width	$\frac{1}{2}$	$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3 inches.
	Price	12/	14/	16/	20/	24/	28/	32/ per dozen.
5 " "	"	9/	10/	12/	15/	18/	21/	24/ "

**S. & J. Surgeon's Rubber Adhesive Plaster**

Has almost entirely supplanted the old form of Adhesive, by reason of its superiority in all essential qualities. PLAIN or POROUS.

In 5-yard rolls, 7 inches wide, 8/6 each. In 1-yard rolls, 7 inches wide, 17/ per dozen.

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	Price	18/	24/	30/	40/	50/	60/ per dozen.

**Belladonna Plasters**—Porous and Plain, 5 × 7 $\frac{1}{2}$  inches, 54/ per gross; 7 × 12 inches, 1 0/ per dozen.

1-yard rolls, 7 inches wide, 27/6 per doz. 5-yard rolls, 5 inches wide, 102/; 7 inches wide, 128/ per doz.  
" " on red felt, 36/ per doz. 5 × 7 $\frac{1}{2}$  inches, 8/ per doz. 7 × 12 inches, 12/ per doz. On swansdown, 36/ per doz. yards.

**Belladonna Breast Plasters**, 6 inches, 4/6; 7 inches, 6/; 8 inches, 7/6 per dozen.

**Kid Plasters**, long shape, 5/, 6/, and 7/ per dozen.

**Camphorated Blister Plaster**, 27/6 per dozen yards.

**Strengthening Plasters**—Porous, 5 × 7 $\frac{1}{2}$  inches, 30/ per gross; 7 × 12 inches, 72/ per gross.

1-yard rolls, 5 inches wide, 14/; 7 inches wide, 27/6 dozen yards. 5-yard rolls, 5 inches wide, 66/; 7 inches wide, 96/ per dozen.  
On red felt, " 5 × 7 $\frac{1}{2}$  inches, 86/ gross; 7 × 12 inches, 144/ gross. " 12/6; " " 14/ each;

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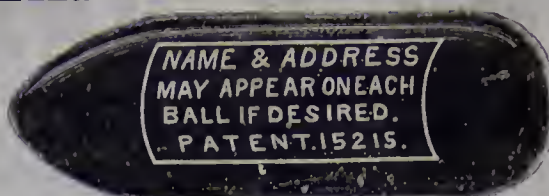
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Elegant Veterinary  
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No. 4.—**Alterative Balls**, 2/ per doz.  
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R Aloes Barb. .. 1½ dram  
Antim. Tart. .. 1 dram  
Saponis .. 2 drams  
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Chloral. Hydrat. .. 1 dram  
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No. 5.—**Astringent Balls**, 2/ per doz.  
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No. 12.—**Condition Balls**, 2/ per doz.  
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Antim. Tart. .. 1 dram  
Potass. Nit. .. 1 dram  
Antim. Sulph. .. 1 dram  
Pulv. Resine .. 1 dram  
" Pip. Cayenne .. 1 scruple  
" Gentian. .. 1 dram  
Sapo. Mollis .. 1 dram  
Theriaceae, Q.S.

No. 23.—**Condition Balls**, 2/ per doz  
Formula as No. 12. Aloes omitted. 20/

No. 6.—**Cordial Balls**, 2/ per doz.  
R Pulv. Zingib. .. 3 drams 20/  
" Gentian. .. 3 drams  
Theriaceae, Q.S.

No. 7.—**Cough Balls**, 2/ per doz.  
R Aloes Barb. .. 1 dram 20/  
Pulv. Digitalis .. 1 dram  
Potass. Nit. .. 2 drams  
Mass. Commun. Q.S.

No. 16.—**Cough Balls**, 2/ per doz  
R Ext. Belladon. .. 1 dram 20/  
Aloes Barb. .. 1 dram  
Potass. Nit. .. 2 drams  
Mass. Commun. Q.S.

No. 17.—**Cough Balls**, 2/ per doz.  
R Ext. Belladon. .. 1 dram 20/  
Camphorae .. 1 dram  
Pulv. Digitalis .. 1 dram  
Potass. Nit. .. 2 drams  
Mass. Commun. Q.S.

No. 21.—**Cough Balls (Chlorodyne)**  
3/3 per doz.  
R Chlorodynum .. 2 drams 33/  
Ext. Belladonnæ .. 1 dram  
Camphorae .. 1 dram  
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Dear Sirs,—I beg to say that the Duraplastic Ball supplied to me by your firm answer all the advantages claimed for them.

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Yours faithfully,  
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From T. Blakeway & Son,  
Veterinary Surgeons, Stourbridge.  
Dear Sirs,—We should be obliged if you would kindly forward us at your earliest convenience five gross of your Patent Duraplastic Physio Balls. The coating of these balls we consider a very elegant preparation, and from its smoothness, coupled with the shape in which the balls themselves are made up, we find them particularly easy of administration, and the chances of their being coughed back are reduced to a minimum.

Faithfully yours,  
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Gentlemen,—I have been using your Duraplastic Horse Balls for several months, and am very pleased with them. I find that to a single-handed practitioner, they are invaluable.

Yours truly,  
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No. 8.—**Diuretic Balls**. 1/9 doz.  
Per gross 18/  
R Pulv. Resin. .. 2½ drams  
Potass. Nit. .. 2½ drams  
Sapo. Q.S.

9.—**Fever Balls**. 2/ doz.  
R Antim. Tart. .. 1 dram 20/  
Camphorae .. 1 dram  
Potass. Nit. .. 2 drams  
Mass. Commun. Q.S.

No. 1.—**Physic Balls**. 2/ doz.  
Aloes Barb. .. 4 drams 20/

No. 2.—**Physic Balls**. 2/6 doz.  
Aloes Barb. .. 5 drams 25/

No. 3.—**Physic Balls**. 2/9 doz.  
Aloes Barb. .. 6 drams 27/

No. 18.—**Physic Balls**. 3/ doz.  
Aloes Barb. .. 7 drams 30/

No. 19.—**Physic Balls**. 3/6 doz.  
Aloes Barb. .. 8 drams 36/

No. 15.—**Stimulating Balls**. 2' doz.  
R Ammon. Carb. .. 2 drams 20/  
Aloes Barb. .. 1 dram  
Pulv. Gentian. .. 2 drams  
" Zingib. .. 1 dram  
Camphorae .. 1 dram  
Theriaceae, Q.S.

No. 24.—**Stimulating Balls**. 2/ doz.  
Formula as No. 15. Aloes omitted 20/

No. 10.—**Tonic Balls**. 2/ doz.  
R Ferri Sulph. Par. .. 1½ dram 20/  
Pulv. Zingib. .. 1½ dram  
Ext. Gentian. .. 2 drams  
Mass. Commun. Q.S.

No. 11.—**Tonic Balls**. 1/9 doz.  
R Cupri Sulph. .. 1 dram 18/  
Pulv. Zingib. .. 1 dram  
Mass. Commun. Q.S.

No. 20.—**Tonic Balls (Quinine)**.  
2/9 doz.

R Quinine Sulph. .. 1 scr. 27/  
Ferri Sulph. pur. .. 1½ dram  
Pulv. Zingib. .. 1½ dram  
Ext. Gentian. .. 2 drams  
Mass. Commun. Q.S.

No. 13.—**Worm Balls**. 2/6 doz.  
R Calomel .. 2 scr. 25/  
Aloes Barb. .. 3 drams  
Mass. Commun. Q.S.

No. 14.—**Worm Balls**. 5/ doz.  
R Aloes Barb. .. 2 drams 50/  
Ferri Sulph. .. 2 drams  
Antim. Tart. .. 2 drams  
Ol. Filleis Maris .. 1 dram  
Syrup. Q.S.

*These Balls are specially adapted for export; and their sale is steadily increasing abroad, in India, Australia, Egypt, &c.*

**PRIVATE FORMULÆ.**—WYLEYS (LIMITED) will be glad to prepare Patent Duraplastic Balls from private recipes or modifications of the Veterinary Pharmacopœia formulæ, also to model and coat any masses which may be entrusted to them. Arrangements can also be made to have the name of the Chemist upon each Ball if desired, upon orders of two gross of assorted Balls.

All Balls are packed in boxes of one dozen. Samples forwarded free on application.

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